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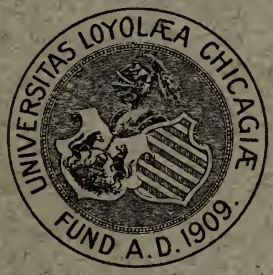

CATALOGUE

1910-1911

LOYOLA UNIVERSITY

1076 West Twelfth Street, Chicago, Ill.

1061 STUDENTS **127 PROFESSORS**

Law Department—Has quarters in the Ashland Block. The Dean is Mr. William Dillon, LL.D. Candidates for this course apply to Mr. A. D. McMahon, A. M. LL. B., Secretary, Ashland Block. Hours of instruction 6:30 to 9:00 evenings.

Medical Department—Bennett Medical College, 1358-1362 Fulton Street. Founded 1868. Every facility in the way of complete equipment and competent faculty, is placed at the command of the student body for the successful pursuit of their medical work. J. D. Robertson, M. D., President, W. F. Waugh, M. D., Dean.

Engineering Department—Opens September, 1911; high school diploma required for admission. The new engineering building will possess all the best features of the latest engineering schools. Professor J. D. Newton, A. M., M. E., of Cornell has been chosen Dean. Address 1076 West 12th Street.

Pharmacy Department—In point of teaching and equipment has taken its place among the recognized institutions of the country. Address 1362 Fulton Street.

College of Arts and Sciences—St. Ignatius College, 1076 W. 12th Street. Gives thorough instruction in Philosophy, Higher Mathematics, the Natural Sciences, Ancient and Modern Languages, Literature, History, etc.

The High Schools—St. Ignatius High School, 1076 W. 12th St. and Loyola Academy, Evanston and Devon Avenues admit pupils who have finished 8th grade and take them through the usual high school studies.

The Commercial School—Is a three years' high school course, giving a thorough training for business life. In this course are taught Bookkeeping, Stenography, Typewriting, Commercial Arithmetic, Algebra, Commercial Law, Business Correspondence, etc.

LOYOLA UNIVERSITY

CATALOGUE

June 1911

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The Law of Agency.

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Clinical Assistant.

O'SHAUGNESSY, HON. JOHN P.....Loyola Law School
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The Law of Suretyship—Partnership.

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Adjunct Professor of Chemistry.

SCHULTE, THEODORE, Ph. D., S. J.....1076 W. 12th St.
Professor of Chemistry.

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Clinical Assistant in Venereal Diseases.

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Instructor in Botany and Plant History.

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Professor of Otology and Rhino-Laryngology.

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Professor of Dermatology.

WOLDENBERG, MAXIMILLIAN, Ph. D.....3344 Vernon Ave.
Adjunct Professor of Industrial Chemistry.

WOLFORD, ARTHUR F., M. D.....1402 W. Monroe St.
Clinical Assistant.

WOOD, J. A., D. D. S.....Robey & Madison Sts.
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ZELINSKI, WALTER FRANZ VON, M. D., Ph. G.....4801 Lincoln Ave.
Curator, Professor of Botany and Plant Histology.
Demonstrator in Anatomy.

ZOLINE, ELIJAH N., A. B., LL. B.....Loyola Law School
Lecturer on Equity Jurisprudence and Practice.

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HON. JOHN P. O'SHAUGNESSY,
Of the Chicago Bar.

FOUNDATION.

The Law Department of Loyola University was established in September, 1908. From the beginning its success has been pronounced, and during the past year the Department was obliged to enlarge its quarters. It now occupies a commodious and quiet suite in the Ashland Block, Clark and Randolph streets, in the center of Chicago's business district. The regular session for the year 1911-1912 will open on Tuesday, September 5th, 1911, at 6:30 p. m.

ADVANTAGES.

The class sessions of the Department are held in the evening from 6:30 to 9:00 o'clock, thus making it possible for young men employed in law offices to unite the advantages of a regular, scientific course in the law under experienced instructors with the practical training afforded by their daily work. This arrangement also enables those engaged in clerical and commercial positions to give their attention to their duties and at the same time prepare themselves for the practice of the profession.

The location of the Department in Chicago, the commercial and financial center of the West, presents opportunities which are unequaled elsewehere to those who must support themselves whilst pursuing their legal studies. The officers of the Department make every effort to aid its students to secure desirable employment when seasonable application for such assistance is made. Many requests for clerks are received from the leading law firms of Chicago, and the Secretary is frequently able to place students desiring such positions.

Chicago also affords innumerable advantages for the study of law in all its branches: Varied and important litigation is here being constantly carried on. Sessions of the Courts of Cook County, the Municipal Court of Chicago, and the Federal Courts are held daily, thus affording to those who have leisure to attend ample opportunity of learning the trial methods of the leading lawyers at the Bar of Illinois. The library facilities of Chicago, open to students in the professions, are unsurpassed, and in addi-

tion, the Department has a library suitable for study and research at the disposal of its students.

The Department enjoys, moreover, the distinction of being the only evening law school in Chicago maintained and supported by a University. Members of the learned profession, through their official associations, are continually pointing out the desirability of having professional schools placed under the control of literary institutions, but until the establishment of the Law Department, by Loyola University, there existed in Chicago no evening law school under such auspices. Worthy young men, whose circumstances do not permit them to give the entire day to the study of law, may here secure their professional training and receive their law degrees from a University of recognized standing.

Students in the Law Department are admitted to the musical and literary societies, to the gymnasium and athletic clubs of the University, and to the columns of its Journal on the same basis as students in the other Departments. Thus there is fostered among the law students a spirit productive of pride in their work, and an incentive is given to better and more sustained effort. This bond of intellectual fellowship will present ideals of high achievement utterly absent in an unaffiliated law school.

AIM—METHOD OF INSTRUCTION.

The aim of the Department is to give its students a thorough training, both theoretical and practical, in all branches of the law. The course of studies is so arranged as to impart that knowledge of the law which is indispensable to students in whatever jurisdiction they may intend to practice.

The fact that the class sessions are held in the evening has enabled the Department to secure the teaching services of the leading practitioners at the Chicago Bar. Hence, the law faculty is not committed to the exclusive use of any particular system of legal instruction; the professors have been chosen because of success in their special field, and it is not deemed wise to restrict them to any particular method of imparting the knowledge they have acquired from their

study and experience. All of the professors have, however, adopted a system of instruction based on the principles of the **Ratio Studiorium.** Matter, whether text or adjudicated cases, assigned for home study is first gone over in lecture by the professor, who explains what is obscure or difficult and illustrates by practical example the principles involved.

The student then studies the assigned matter and at the next class session is prepared for the recitation, which is an exhaustive quiz, sometimes by way of question and answer and often by the oral solution of hypothetical problems involving the principles explained and studied. The student, under this system, has ample opportunity of learning thoroughly the law on each topic: First, from the **praelectio,** or explanation of the profesor; secondly, from his own careful home study; and, lastly, from the recitation or class discussion.

REQUIREMENTS FOR ADMISSION.

Regular Students.—Applicants for admission to the Department as regular students must be not less than eighteen years of age, and must present proof of the successful completion of a high school course in a school of recognized standing. Graduates or students of private institutions, with credits equivalent to those of high school graduates, will be admitted as regular students on proof of such credits.

Special Students.—The officers of the Department are authorized to admit on proper examination as special students persons of mature age whose preliminary education does not meet entirely the requirements of the rule for admission as regular students, but no such special student can obtain a degree in law from the University.

Advanced Standing.—Students who have successfully prosecuted a portion of their law course in a law school with equivalent courses and requirements may be admitted to the second or third year classes of the Department upon proof of such prior study. In such cases the certificate of the Dean, or other officer, will be deemed the best evidence.

FEES AND EXPENSES.

Matriculation.—In all cases a matriculation of Five Dollars is charged when a student is first registered. This fee is paid but once and is not returnable.

Tuition.—The tuition fee for regular students is Seventy-Five Dollars, payable quarterly in advance. A discount of Five Dollars will be allowed to students who pay the year's tuition in advance before October 1st.

Graduation.—Upon graduation of students a diploma fee of Ten Dollars will be charged.

Those desiring to take only certain courses will make arrangements with the Secretary of the Department, charges in such cases will be based on hours of classroom work.

DEGREES.

Upon successful completion of the entire regular course, as outlined, students are entitled to receive the degree of Bachelor of Laws, but before the degree is conferred each student is required to pass satisfactory written examination embracing the whole field of the law. In preparation for this examination a review course is given in the third-year class, one evening each week for the entire year. The papers in this general examination are marked by the Executive Board of the Department.

Under no circumstances will a degree be conferred upon a student who has not completed one year of resident study in the Department, nor will any degree be conferred on students whose preliminary education does not meet entirely the requirements of the rule for admission as a regular student.

CLASS SESSIONS—COURSE OF STUDIES.

The regular course covers a period of three years, divided into a First, Second and Third year.

Class sessions are held on Monday, Tuesday, Wednesday and Thursday evenings from 6:30 to 9:30. Regular and punctual attendance on the part of the students and also daily preparation for class recitations are prerequisites, and delinquency in either particular will be deemed sufficient cause for cancellation of the delinquent's registration.

The quarterly system has been chosen as best adapted to the requirements of an evening law school. Each course, upon its completion, is made the subject of a searching

written examination. This promotes more careful study and admits of thorough examination with less tax upon the student's endurance than a general test at the close of each year. An average of 70 per cent must be attained upon the written examination in each subject for students to continue with their classes. Those who fail to attain 70 per cent in any topic may, in the discretion of their professor, be given a second examination, but no student who fails to attain such average in two topics will be allowed such re-examination.

The following schedule shows the required law courses arranged according to years:

FIRST YEAR.

I—*Constitutional and Fundamental Law.*—5 hours per week for 12 weeks.—Texts—Constitutions of the United States and of Illinois; Robinson's Elementary Law.
Professor—JAMES HARTNETT.

II—*The Law of Contracts.*—5 hours per week for 14 weeks.—Text—Instructor's Syllabus; Selected Cases.
Professor—ARNOLD D. MCMAHON.

III—*The Law of Torts.*—5 hours per week for 12 weeks.—Text—Burdick on Torts; Selected Cases.
Professor—J. AMBROSE GEARON.

IV—*The Law of Crimes and Criminal Procedure.*—5 hours per week for 10 weeks.—Text—May on Criminal Law; The Criminal Code of Illinois. Professor—EDWARD G. PURKHISER.

V—*The Law of Principal and Agent.*—2½ hours per week for 15 weeks.—Text—Huffcut on Agency; Selected Cases.
Professor—WILLIAM C. MCKENNA.

VI—*The Law of Property—Things Personal.*—2½ hours per week for 8 weeks.—Text—Smith on Personal Property.
Professor—MICHAEL J. AHERN.

VII—*Sales of Personalty.*—2½ hours per week for 7 weeks.—Text—Benjamin's Principles of Sales.
Professor—JOSEPH J. THOMPSON.

VIII—*The Law of Bailments and Carriers.*—2½ hours per week for 15 weeks.—Text—Browne on Bailments; Selected Cases.
Professor—JOSEPH A. GRABER.

IX—*The Law of Persons and Domestic Relations.*—2½ hours per week for 16 weeks.—Text—Long on Domestic Relations.
Professor—MICHAEL F. GIRTEN.

SECOND YEAR.

X—*The Law of Property—Things Real.*—2½ hours per week for 28 weeks.—Text—Tiedeman on Real Property.
Professor—FRANCIS E. CROARKIN.

XI—*Abstracts and Conveyancing.*—Lecture and Practice Course.—Text—For reference, Warvelle on Abstracts; Prepared Abstracts. Professor—FRANCIS E. CROARKIN.

XII—*The Law of Evidence.*—2½ hours per week for 23 weeks.—Text—Hughes on Evidence. Professor—FERDINAND GOSS.

XIII—*Pleading at Common Law.*—2½ hours per week for 24 weeks.—Text—Shipman's Common Law Pleading.
Professor—PATRICK H. O'DONNELL.

XIV—*Equity Jurisprudence.*—2½ hours per week for 29 weeks.—Text—Bispham on Equity.
Professor—GEORGE V. MCINTYRE.

XV—*Wills and the Administration of Decedents' Estates.*—2½ hours per week for 16 weeks.—Texts—Rood on Wills; Illinois Statutes. Professor—MICHAEL V. KANNALLY.

XVI—*The Law of Partnership.*—2½ hours per week for 8 weeks.—Text—Mechem's Elements of Partnership.
Professor—JULIAN C. RYER.

XVII—*The Law of Guaranty and Suretyship.*—2½ hours per week for 12 weeks.—Text—Stearns on Suretyship.
Professor—JULIAN C. RYER.

XVIII—*The Law of Negotiable Instruments.*—2½ hours per week for 8 weeks.—Text—Bunker on Negotiable Instruments.
Professor—JOHN P. MCGOORTY.

XIX—*The Law of Damages.*—2½ hours per week for 10 weeks.—Text—Sedgwick on Damages.
Professor—ARNOLD D. MCMAHON.

Practice Course in connection with Third Year Course XXX—approximately 25 hours.

THIRD YEAR.

XX—*Practice and Procedure.*—Approximately 40 hours.—Text—Instructor's Syllabus; for reference, Thompson on Trials.
Professor—ARNOLD D. MCMAHON.

XXI—*Equity Pleading and Practice.*—2½ hours per week for 15 weeks.—Text—Fletcher on Equity Pleading.
Professor—JOHN M. O'CONNOR.

XXII—*The Law of Insurance.*—2½ hours per week for 10 weeks.—Text—Vance on Insurance.
Professor—JOSEPH J. THOMPSON.

XXIII—*The Law of Private Corporations.*—2½ hours per week for 26 weeks.—Text—Marshall on Corporations.

Professor—WILLIAM DILLON.

XXIV—*The Law of Public Corporations.*—2½ hours per week for 12 weeks.—Text—Instructor's Syllabus; for reference, Dillon's Municipal Corporations.

Professor—WILLIAM DILLON.

XXV—*Constitutional Law.*—2½ hours per week for 20 weeks.—Text—Instructor's Syllabus; Cooley's Principles; Selected Cases.

Professor—JAMES HARTNETT.

XXVI—*Conflict of Laws.*—2½ hours per week for 8 weeks.—Text—Minor's Conflict of Laws. Professor—J. AMBROSE GEARON.

XXVII—*Legal Ethics.*—8 hours.—Lecture Course.

Professor—GEORGE W. WARVELLE.

XXVIII—*Insolvency and Bankruptcy.*—10 hours.—Lecture Course.

Professor—

XXIX—*Review Course.*—Approximately 70 hours.—Instructor's Syllabus. Professor—ARNOLD D. MCMAHON.

XXX—*Practice Court.*—Approximately 45 hours. Assigned Cases.

Presiding Judge—HON. THOMAS B. LANTRY.

PRACTICE COURT.

The work of the Practice Court has been an especially successful feature of the Law Department. It is in charge of the Hon. Thomas B. Lantry, formerly Judge of the Municipal Court of Chicago, and its rules of procedure are based on the rules in force in the Circuit Court of Cook County. Statements of actual cases are assigned to the students who are required to institute, prosecute and defend the proper proceedings at law or in equity as the case may be. Occasionally, also, work is assigned in matters of a purely criminal nature. Whilst the members of the Third year class are naturally required to take the leading part in the exercise of the Court, opportunity is afforded all other students, as their progress in the law warrants, to take advantage of the training afforded by the course. At the end of each trial, the presiding judge comments on and criticizes the methods of the students, explaining all points of difficulty presented by the proceedings.

Each student is required before graduation to remove a case from the Practice Court to an Appellate Tribunal; preparing the record, abstract, and briefs substantially as

required by the rules of practice in the Appellate Court of Illinois. Three instructors of the Department are selected yearly to take charge of this branch of the Practice work.

During the year 1910-11 the following students acted as officers of the Practice Court: Harry Smitz, '13, Clerk of the Court; James J. Gaughan, '13, Bailiff; Eugene E. McHugh, 11, and Thomas F. O'Connor, '13, Stenographers.

Special lectures on subjects of legal importance are delivered from time to time by Judges of the various courts and others of eminent standing in the profession.

COURSE OF LOGIC, PHILOSOPHY AND SOCIOLOGY.

This class was organized in October, 1902. It is conducted in connection with the Law Department, meeting Friday evenings from 6:30 to 9 p. m., from September to May, in the Ashland Block.

Its object is to furnish to college graduates, advanced and special students and professional gentlemen, an opportunity to review their philosophy or to make a more thorough and practical study of its fundamental questions, after some experience in practical life will have made them realize their importance. Other gentlemen, though not college graduates nor law students, are admitted to the class if their tastes and previous attainments qualify them to profit by it.

The class exercises consist of lectures and discussions on the chief points of Logic, Psychology, Ethics and Sociology. The subject matter of the past year embraced three courses, Logic, Epistemology and Sociology.

Those who have already attained the degree of A. B. will be eligible to that of A. M., on the conditions of the requisite attendance, the presentation of a paper on a philosophical subject and an examination satisfactory to the Board of Managers of the University.

No Text-book is assigned, but instead a syllabus of the lecture is distributed each evening and a list of standard reference books is supplied.

Students of the Law Department are admitted without additional fee; others are charged a fee of ten dollars, payable in advance for the whole course.

Professor: Rev. Edward J. Gleeson, S. J.
The following are outlines of the course:

I.—Formal Logic.

1. Definition. General idea of reasoning. Logic, natural and scientific.

2. Elements of Logic.

(a) Material Elements. Acts of the mind; ideas, judgments, reasoning; their nature, kinds, properties and external expression.

(b) Formal Element. Inference from a combination of judgments; its requisites, external expression. Principles and laws of reasoning. Forms of Argumentation.

3. Kinds of Reasoning.

(a) Deductive. The Syllogism, demonstrative, probable, sophistic. Fallacies.

(b) Inductive. Its nature, requisites, use and abuse.

4. How to Build an Argument. Invention, definition, division.

5. Method, analytic, synthetic. Science.

II.—Material Logic.

1. Truth, its nature, kinds.

2. Logical truth; its attainment; states of the mind with regard to truth.

3. Certitude, its nature, kinds.

4. Skepticism. Kinds: Universal, Methodical Doubt, Agnosticism, Materialism, Positivism, Idealism (Christian Science), Rationalism, Traditionalism.

5. Means of attaining truth: Our cognoscitive faculties; senses, external and internal; intellect. Authority.

6. Criteria of truth: proximate, ultimate.

Sociology.

1. Sociology is the science of society with a view to its betterment.

2. Society is a collection of men conspiring to a common end by common means.

3. Its Elements:

A. Man.
1. His origin and place in the universe.
2. His nature.
(a) His physical nature.
1. His body, its faculties.
2. His soul, its nature and faculties.
3. Their union.
(b) His moral nature.
1. Principles of morality.
2. Rights and duties.
(c) His social nature.

B. Origin of society. Materialistic evolution.
C. End of Society.
D. Authority, its origin, nature. Destructive theory of Rousseau. Anarchy.

4. Kinds of Society. Primary; the family, state and church. Secondary Societies.

A. The Family.
1. Marriage, of divine institution; hence in its essentials, independent of civil authority.
2. Properties: Unity and Indissolubility; hence divorce impossible by human authority.

B. Civil Society.
1. Origin in general from God. Its form determined by some human fact.
2. The family, its unit.
3. Its proximate and ultimate end.
4. Civil authority in the abstract from God; hence the absurdity of the Social Contract of Rousseau; in the concrete determined by some human fact.
5. Forms of civil society. Stability. Liberty, true and false.
6. Tyranny. Usurpation. Transmission of civil authority.
7. Constitution, natural and written.
8. Minor societies. Right to existence and self government. Secret societies. Relation to primary societies.
9. Functions of the supreme authority; legislative, judicial, executive; taxation, militia, capital punishment.

10. Social Order:
    (a) Material order. Political Economy.
    (b) Moral order. Religion. Union of State and Church. Liberty of Conscience. Toleration; dogmatic, personal, civil. Liberty of speech and of the press. Education. Common Schools.
11. Civilization.

C. International Society.
1. International Law. Sources.
2. War.
3. Intervention.

D. Religious Society. The Church.
1. Origin. End.
2. Nature. Rights.
3. Relation to Civil Society.
4. Supreme Authority. Independent of the State. Investiture. Secular Arm. Veto of Secular Rulers in the Election of the Pope.

Register of Students

THIRD YEAR.

Anderson, George J., A. B.	St. Ignatius College.
Devine, John B., A. B.	St. Ignatius College.
Donigan, C. Marcellus	St. Mary's College, Kans.
Dougherty, James L., A. M.	St. Viateur's College.
Gavin, John E.	Kalamazoo College, Mich.
Griffin, Joseph E.	Maywood H. S.
Guest, John M., A. M.	St. Ignatius College.
Guinane, Thomas A., A. M.	St. Ignatius College.
Kettles, Arthur W., A. B.	St. Ignatius College.
Malone, C. A.	University of Notre Dame.
Moroney, Joseph J.	St. Xavier's College, Ohio.
McGovern, Francis W.	St. Ignatius College.
McHugh, Eugene E., A. M.	St. Ignatius College.
McDermott, T. F.	U. of Wisconsin.
O'Kelly Walter R., A. M.	St. Ignatius College.
Orgo, Carmine	St. Ignatius Academy.
Placzek, Edmund E.	St. Stanislaus College.
Rainey, G. Frank	St. Viateur's College.
Simon, Joseph J., A. B.	De Paul University.
Sinnott, Edmund M., A. M.	St. Ignatius College.
Sullivan, Philip L.	Woodstock H. S.
Turner, Frank T.	St. Ignatius College.
Walsh, James	De LaSalle Institute.

SECOND YEAR.

Bidwell, Joseph E., Jr.	English H. S.
Bean, Vernon L.	Elgin Academy.
Bowler, Michael J.	St. Mary's College, Kansas.
Byrne, Patrick J.	St. Patrick's Commercial Academy.
Byrne, John J.	Special Student.
Carroll, William A., A. B.	St. Ignatius College.
Cavanagh, Raymond A.	St. Ignatius Academy.
Cook, John R., Jr.	St. Cyril's College.
Curran, George	St. Ignatius Commercial Academy.
Doyle, Ignatius P., A. B.	St. Ignatius College.
Delany, W. S.	University College, Blackrock, Dublin.
Dillon, William H., A. B.	De Paul University.
Fitzpatrick, Thomas A.	Special Student.
Gearon, Gerald	John Marshall H. S.
Grenager, Emil	Minneapolis H. S., Minn.
Graham, Frank J.	Phillip's Academy, Andover.
Herman, Ladislaus	University of Notre Dame.
Hassell, Albert	Eastern Illinois Normal School.
Holdorf, W. H.	Special Student.
Ignowski, Vincent P., A. B.	St. Mary's College, Ky.

Kasmar, Girard A.	Phillips Exeter Academy.
Looby, Michael F.	Rockwell College, Ireland.
Nelson, Axel E.	Clyde H. S.
Pakenham, J. A.	Clongowes Wood College, Ireland.
Quinn, James R., A. B.	St. Ignatius College.
Quan, Michael J.	Special Student.
Sevick, Frank A.	Special Student.
Young, Joseph E.	St. Ignatius Commercial Academy.

FIRST YEAR.

Ahern, James D.	De LaSalle Institute.
Anderson, William J.	St. Ignatius Academy.
Austin, Edward R.	Covington High School, Ky.
Benz, John T., A. B.	St. Ignatius College.
Bowe, Augustine J., A. B.	St. Ignatius College.
Brennan, Edward M., Ph. B.	Holy Cross College, Mass.
Collins, Sarsfield, A. B.	St. Ignatius College.
Cudihy, John W., A. B.	St. Ignatius College.
Dillman, Joseph F.	St. Ignatius Commercial Academy.
Fahrner, C. J.	St. Josephs Technical H. S.
Flaherty, William J.	Lake H. S.
Gaughan, James J., A. B.	St. Ignatius College.
Gleeson, James P.	St. Ignatius College.
Gombaszky, John	Royal Gymnasium, Austria.
Graham, John F., A. B.	St. Ignatius College.
Grogan, James J.	De LaSalle Institute.
Hasten, Erwin J., A. B.	St. Ignatius College.
Howe, Thomas J.	St. Ignatius Academy.
Keefe, Walter S.	St. Ignatius College.
Keefe, William B.	St. Mary's College, Mo.
Kowalski, Joseph A.	Northwest Division H. S.
Lambeau, Alfred O., A. B.	St. Ignatius College.
Moynihan, Emmett	U. of Notre Dame.
McGah, William J.	St. Ignatius College.
McGrath, Philip H., A. B.	James Millikin Uni., Ill.
McMahon, Henry J.	Rockwell College, Ireland.
McNamara, Joseph P.	St. Ignatius Commercial Academy.
McNulty, Joseph D., A. B.	Georgetown Uni., Washington, D. C.
O'Connell, J. Daniel	St. Ignatius Academy.
O'Connor, Thomas F.	St. Ignatius College.
Scheid, Aloysius, Ph. B.	Holy Cross College, Mass.
Smitz, Harry	Wendell Philips H. S.
Sortore, Earl H.	Kalamazoo College, Mich.
Sebastian, Leo H., A B.	St. Ignatius College.
Vesely, Stanley	Bohemian Nat'l H. S., Bohemia.
Walsh, Larwence J., A. B.	St. Ignatius College.

LOGIC AND SOCIOLOGY.

Brown, W. E.	Chicago,	Ill.
Chan, George	Chicago,	Ill.
Cagney, John	Chicago,	Ill.
Day, L. P.	Chicago,	Ill.
DeRoulet, Alfred	Chicago,	Ill.
Dwyer, J. E.	Chicago,	Ill.
Follen, P. E.	Chicago,	Ill.
Foster, John G.	Chicago,	Ill.
Foster, Arthur	Chicago,	Ill.
Ginnane, T. J.	Chicago,	Ill.
Gundgerson, C. A. S.	Chicago,	Ill.
Hurley, F. A.	Chicago,	Ill.
Johnson, W. R.	Chicago,	Ill.
Jones, T. G.	Chicago,	Ill.
Kane, John	Chicago,	Ill.
Keefe, E. T.	Chicago,	Ill.
Kendall, W. E.	Chicago,	Ill.
McMahon, Frank J.	Chicago,	Ill.
McGrath, T. F.	Chicago,	Ill.
O'Connell' Philip	Chicago,	Ill.
Powers, Joseph	Chicago,	Ill.
Swanson, A. E.	Chicago,	Ill.
Sackley, John B.	Chicago,	Ill.
Trantina, Frank C.	Chicago,	Ill.

Medical Department

TRUSTEES AND ADMINISTRATIVE OFFICERS.

BOARD OF TRUSTEES.

John Dill Robertson, M. D.....President
D. S. Sattler.....First Vice-President
Julius H. Ryer.....Second Vice-President
William Francis Waugh, M. D.....Treasurer
Wm. J. Pollock, M. D.....Secretary

Alexander J. Burrowes, S. J.	Herman B. Meyers.
Henry S. Spalding, S. J.	George H. Currier.
Charles J. O'Connor, LL. D.	H. K. Ward.
George H. Bower.	Scott Cowan.

ADMINISTRATIVE OFFICERS.

John Dill Robertson, M. D., President.
Wm. F. Waugh, M. D., Dean.
Owen T. Owen, A. B., Business Manager.
Arthur B. Rankin, B. A., M. B., Junior Dean.
James A. Waugh, Financial Secretary.
Thomas A. Carter, B. Sc., M. D., Asst. Manager.
Miss M. Leishin, Stenographer.

The Business Manager is authorized to conduct correspondence with students; and through him will be obtained from the Dean of the College information concerning credits for preliminary education and for work done in other institutions.

The College office is open daily and by appointment either the Business Manager or representatives may be seen in the evening. Address all correspondence to Business Manager, Bennett Medical College.

Students seeking admission should interview Mr. Owen T. Owen, B. A., Business Manager, who will matriculate all students.

The receipts for money must be signed by the Financial Secretary, Mr. James A. Waugh.

COLLEGE CALENDAR.

1911.

September 19....Entrance and conditional examinations begin.
September 26th.....First term begins
November 30th.....Thanksgiving Day recess
December 22nd, 5 P. M.....Christmas vacation begins

1912.

January 3, 9 A. M.....Christmas vacation ends
January 26th.....Second term begins
February 22nd.....Washington's birthday recess
May 30th.....Decoration Day
June 7th.....Third term begins
June 13th.....Alumni banquet
June 14th.....Alumni reunion 10 A. M.
June 14th.....Commencement 8 P. M.
July 4th.....Holiday
September 20th.....Third term ends

The regular term commences Tuesday, September 26, 1911, at 8 P. M., and ends June 2d, 1912.

Bennett Medical College

Medical Department of the Loyola University

HISTORY.

Bennett Medical College was founded in the year 1868, being named in honor of Sir James H. Bennett of Scotland.

The first course of lectures was delivered to a student body aggregating thirty in number in the second story of a building on Kinzie street near the corner of La Salle, in 1868. The sessions of 1869 and '70, and of 1870 and '71 were conducted in two upper floors of a building located at 180 E. Washington street. Three days after the opening of the session of 1871 and '72 the great fire of October 9, 1871, broke out, reducing to ashes both the Bennett and Rush Medical Colleges, together with a large part of Chicago. With but a single exception the offices of the entire faculty, together with their contents, comprising libraries and instruments, were destroyed by the fire.

Within a month after this famous holocaust the effect of the shock was overcome, a large class was quickly housed in ample quarters at 461 South Clark street and the work was continued with persistent energy. During the winter of 1874 and '75, ground was purchased at 511-513 South State street, where buildings were erected. A hospital accommodating thirty patients was built at the rear of the college in 1877. In 1889 the old building was sold and a new one erected at 1360-1362 West Fulton street, while a large building adjoining at 300 Ada street was fitted up for a hospital and conducted in connection with the college until 1906, when still more room was required for laboratories, whereupon the hospital building was utilized for that purpose. In the same year the college affiliated with the Jefferson Park Hospital, located at 1402 West Monroe street, and made it its hospital.

In 1910 Bennett Medical College took over the faculty and students of the Illinois Medical College. This added to the school a strong body of teachers and brought the alumni of the Bennett Medical College and the Illinois Medical College in one organization under the Loyola University.

In March, 1910, Bennett Medical College became affiliated with the Loyola University, becoming its medical department, and securing thereby the unsurpassed resources of this noted teaching body for the preliminary and scientific preparation of its students.

GOVERNMENT.

The financial government of the college is vested in a Board of Trustees.

The educational work of the college is under the direct supervision of the Loyola University, who, with the faculty of the medical college prepare and enforce the curriculum outlined in this announcement.

LOCATION.

The college is located at the corner of Ada and Fulton streets and can be easily reached by several car lines. Take the Madison, Randolph, or Fulton street cars to Ada street, thence north to the college, or take the Lake Street Elevated to Sheldon Street Station, which is within two blocks of the College.

The telephone number is Haymarket 856.

Address all correspondence to Bennett Medical College, 1360 Fulton Street, Chicago, Illinois.

The Faculty of Bennett Medical College

Representing the Loyola University

ALEXANDER J. BURROWES, S. J., PRESIDENT.
PROFESSOR HENRY S. SPALDING, S. J.,
DIRECTOR OF AFFILIATED WORK OF THE UNIVERSITY.

WILLIAM FRANCIS WAUGH, A. M., M. D., Senior Dean...32 N. State St.
Professor of Therapeutics.

EDGAR MEAD READING, A. M., M. D.....34 Washington St.
Professor of Neurology.

NATHANIEL A. GRAVES, A. B., M. D.....2258 Cornelia St.
Professor of Medicine.

JOHN DILL ROBERTSON, B. S., M. D.....32 N. State St.
Professor of Surgery.

JACOB F. BURKHOLDER, M. D.....108 N. State St.
Professor of Ophthalmology.

WILLIAM JOHN POLLOCK, M. D, Secretary.....2100 W. Chicago Ave.
Professor of Medicine.

WILLIAM RITTENHOUSE, A. M., M. D.....31 N. State St.
Professor of Obstetrics.

HENRY FOSTER LEWIS, A. B., M. D.....29 E. Madison St.
Professor of Obstetrics and Gynecology.

SETH SCOTT BISHOP, B. S., M. D., LL.D.....31 N. State St.
Professor of Otology and Rhino-Laryngology.

WILLIAM ALEXANDER NEWMAN DORLAND, A. B., M. D..1360 Fulton St.
Professor of Obstetrics.

BENJAMIN HARRISON BREAKSTONE, B. S., M. D.....32 N. State St.
Professor of Surgery.

HUGH BLAKE WILLIAMS, M. D.....32 N. State St.
Professor of Otology and Rhino-Laryngology.

J. V. STEVENS, M. D.....Janesville, Wis.
Professor of Pediatrics.

THOMAS STANLEY CROWE, M. D.....Bush Temple
Professor of Mental Diseases.

M. A. LANE, Sc. B.....1360 Fulton St.
Professor of Physiology and Physiological Chemistry.

CHARLES SHERWOOD NEISWANGER, M. D.....22 E. Washington St.
Professor of Electro-Therapeutics.

GEORGE HORACE SOMERS, A. B., M. D.....32 N. State St.
Professor of Physical Diagnosis.

DAVID LIEBERTHAL, M. D.....31 N. State St.
Professor of Dermatology.

NATHANIEL HOMER ADAMS, Ph. M., M. D.....108 State St.
Professor of Nervous Diseases.

A. M. STOBER, A. B., M. D.....3212 Greenwood Terrace
Professor of Pathology.

The Faculty—Continued

ARTHUR B. RANKIN, B. A., M. B., Junior Dean.....1360 Fulton St.
Professor of Anatomy.

STUART JOHNSTONE, M. D.....159 N. State St.
Professor of Gynecology.

WILLIAM BERINGER MARCUSSON, A. M., M. D...2459 W. Jackson Boul.
Professor of Surgery.

NOBLE M. EBERHART, A. M., M. S., M. D.
Professor of Physiologic Therapeutics.

CHARLES WALTER WINNE, Ph. G., M. D.....108 N. State St.
Professor of Dermatology.

CLARENCE DRYDEN BARKER, M. D.....4001 W. North Ave.
Professor of Gynecology.

ROLAND HODGES PHILLIPS, Phg. B. S., M. D.....1526 W. Madison St.
Professor of Clinical Medicine.

SAMUEL ANDERSON MCWILLIAMS, A. M., M. D....3456 Michigan Ave.
Superintendent of Dispensary.

EUGENE SOLOMON TALBOT, M. S., DD. S., M. D., LL. D..31 N. State St.
Professor of Stomatology and Dental Surgery.

CHARLES ALBERT WADE, M. D.....3218 W. Jackson Boul.
Professor of Pediatrics.

ANTON T. H. HOLMBOE, M. D.....2014 W. North Ave.
Professor of Orthopedic Surgery.

J. H. BIEHN, A. M., M. D.....5444 Lakewood Ave.
Professor of Toxicology.

WILLIAM MARCUS PETERSON, M. D.....2849 Belmont Ave.
Professor of Therapeutics.

HENRY ROBERT HARROWER, M. D.....7 W. Madison St.
Professor of Clinical Diagnosis.

GORDON G. BURDICK, M. D.....7 W. Madison St.
Professor of Physiological Therapeutics.

THEODORE C. F. ABEL, M. D.....7 W. Madison St.
Professor of Sanitary Science.

EDWIN PYNCHON, M. D.....31 N. State St.
Professor of Rhinology.

FRANK BYRNES, M. D.....29 E. Madison St.
Professor of Surgery.

FELIPP KREISSL, M. D.....5 N. Wabash Ave.
Professor of Genito-Urinary Diseases.

GEORGE FREDERICK PIERCE, M. D.....7 W. Madison St.
Professor of Diseases of the Stomach.

THEODORE SCHULTE, Ph. D., S. J.....1076 W. 12th St.
Professor of Chemistry.

CHARLES J. O'CONNOR, LL. B.....7 S. Dearborn St.
Professor of Medical Jurisprudence.

THOMAS S. HOGAN, A. M., LL. B.....Ashland Block
Professor of Medical Jurisprudence.

H. G. W. REINHARDT, M. D.....2532 Fullerton Ave.
Professor of Medical Jurisprudence.

The Faculty—Continued

OSCAR B. FUNKHOUSER, M. D.....3158 Ogden Ave.
Professor of Junior Medicine.

K. A. ZURAWSKI, B. A., M. D.....32 N. State St.
Professor of Dermatology and Venereal Diseases.

ARTHUR EDISON GAMMAGE, M. D.....6405 N. Clark St.
Junior Professor in Gynecology.

RICHARD JAY LAMBERT, Phg. M. D.....St. Charles, Ill.
Junior Professor of Pharmacology and Materia Medica.

ELMER HOLMES FLINN, M. D.....1514 S. Kedzie Ave.
Junior Professor of Materia Medica.

J. FAVILL BIEHN, M. D.....Ravenswood
Demonstrator of Laboratory Toxicology.

ALOYSIUS NICHOLAS DOLAN, A. M., M. D.....32 N. State St.
Junior Professor of Ophthalmology.

CHARLES WEBSTER CLARK, M. D.....309 E. 61st St.
Junior Professor of Surgery.

HAROLD HAMILTON REDFIELD, A. B., M. D.....614 W. 71st St.
Junior Professor of Therapeutics.

THOMAS HENRY KELLY, M. D.....1001 E. 75th St.
Junior Professor of Surgery.

THOMAS DOWNES LAFTRY, M. D.....108 N. State St.
Junior Professor of Surgery.

JOHN TYRELL, A. B., LL. B.....72 W. Adams St.
Junior Professor of Medical Jurisprudence.

FLOYD DELOS O'BRIEN, M. D.....233 W. 63d St.
Clinical Professor of Diseases of the Stomach.

ALFRED DEROULET, M. S., M. D.....15 E. Washington St.
Clinical Professor of Gynecology.

HUGH NEIL MACKECHNIE, A. B., M. D., A. M.....7 W. Madison St.
Junior Professor of Surgery.

JEREMIAH HENRY WALSH, M. D.....1605 Grand Ave.
Associate Professor of Surgery.

DOUGLAS AMOS PAYNE, M. D.....108 N. State St.
Associate Professor of Opthalmology.

H. L. O'CONNOR, B. S., M. D.....1402 W. Monroe St.
Professor of Pathology and Director of Laboratories.

DAVID PHILIP MILLER, M. D.....1263 Leland Ave.
Lecturer on Proctology.

DANIEL H. CUNNINGHAM, M. D.....3158 W. Jackson Boul.
Associate Professor of Clinical Surgery.

JOHN J. MEANY, M. D.....3736 W. Chicago Ave.
Assistant in Surgery.

ULYSSES J. GRIM, M. D.....31 N. State St.
Clinical Assistant of Otology.

WALTER T. VENN, M. D.....31 N. State St.
Clinical Assistant in Venereal Diseases.

ALBERT J. CROFT, M. D.....2025 W. 22d St.
Clinical Assistant in Surgery.

The Faculty—Continued

GUSTAVE J. JACOBS, M. D.....1526 W. Madison St.
Instructor in Toxicology.

ALBERT HOWARD CARTER, M. D.....1161 W. Harrison St.
Instructor in Surgery.

GEORGE LEWIS SECORD, M. S., Sc. D.....1362 Fulton St.
Instructor in Pharmacy.

CARL B. WAGNER, M. D.....31 N. State St.
Clinical Assistant in Ophthalmology.

J. J. MONAHAN, M. D.....31 N. State St.
Demonstrator in Anatomy.

NELSON F. MCCLINTON, M. D.....32 N. State St.
Demonstrator in Anatomy.

WALTER FRANZ VON ZELINSKI, B. S., M. D.....2346 Lawrence Ave.
Demonstrator in Anatomy.

REID OWEN HOWSER, M. D.....5681 W. Madison St.
Demonstrator in Anatomy.

EDWARD JOHN KIEFFER, M. D.....1103 W. 12th St.
Instructor in Medicine.

OWEN MEREDITH KNOX, M. D.....31 N. State St.
Instructor in Medicine.

THOMAS A. CARTER, B. S., M. D.....733 Oakdale Ave.
Instructor in Obstetrics.

JAMES J. MCGUINN, M. D.....7 W. Madison St.
Instructor in Surgery.

A. C. GARVEY, A. B., M. D.....1104 Wilson Ave.
Instructor in Surgery.

J. H. EDGECOMB, M. D.....3158 W. Jackson Boul.
Assistant Instructor in Surgery.

J. A. WOOD, D. D. S.....Robey and Madison Sts.
Lecturer in Dental Surgery.

THOMAS ALDHEIM HOGAN, A. M., M. D.....3957 Sheridan Road
Instructor in Phthisio-Therapy.

ELZEAR LAMOTHE, A. B., M. D.....7 W. Madison St.
Instructor in Eye and Ear.

L. STEINER, M. D.....1822 S. Halsted St.
Instructor in Medicine.

A. E. LEHNER, M. D.....2949 N. Central Park Ave.
Clinical Assistant.

DAVID O'SHEA, M. D.....1801 S. Ashland Ave.
Clinical Assistant.

P. F. HASKEL, M. D.....32 N. State St.
Clinical Assistant.

ARTHUR F. WOLFORD, M. D.....1402 W. Monroe St.
Clinical Assistant.

E. E. BERMINGHAM, M. D.....826 S. Leavitt St.
Clinical Assistant.

EDITH B. LOWRY, M. D.....39 W. Adams St.
Clinical Assistant.

GENERAL STATEMENT.

The forty-fourth annual winter session of the Bennett Medical College will open Tuesday, September 26, 1911, and continue eight months. The opening exercises will be held at 8 P. M. in the lower amphitheater of the college building. The college session will close Saturday, June 2, 1912. Public commencement exercises will be held June 14th in conjunction with all departments of the Loyola University.

The course of instruction leading to the degree of Doctor of Medicine is carefully graded and covers a period of four years of eight months each, consisting of lectures, recitations, conferences and laboratory work, with attendance upon dispensary and hospital clinics. Great care has been exercised in arranging the curriculum for the entire course so that the student may not only be thoroughly qualified in theoretical matters, but that he shall receive the utmost amount of practical training. Each student is given personal attention, will make personal examinations of cases and do personal work in the laboratories, clinics and at the bedside. The college is located in a district where there is an abundance of clinical material. The poorer classes, necessarily large in a city of over two million inhabitants, have learned to avail themselves of the gratuitous treatment offered by this institution. Cook County Hospital, which averages 1,000 bed patients daily, is but ten minutes' walk from the College, while the Jefferson Park Hospital is only a few blocks distant. Students are required to attend clinical instruction in these institutions daily in addition to the clinical work done in the college building. Members of our faculty are on the attending staff of the Chicago Union, Lake View, Cook County, Polyclinic, Deaconess, Jefferson Park, Columbus, St. Joseph's, St. Anthony's, St. Bernard's, Mary Thompson, Alexian Brothers, and other hospitals.

Bennett College has always considered therapeutics a most essential part of the medical study. To the young graduate it is the all-important feature. While therapeutics has a great deal of time devoted to it, other branches of the curriculum, and especially those which form the foundation for a well-balanced medical education, receive careful consideration. We believe, in order to be a good physician, the student must be a good anatomist, a good physiologist and a good pathologist. These branches therefore receive the same careful, thorough

attention and unremitting care in the lecture room, laboratories, demonstrating and dissecting rooms, as is devoted to the teaching of therapeutics.

THE COLLEGE BUILDINGS.

The buildings hitherto occupied by the Bennett Medical College were built for medical purposes. They are located in a part of the city easily accessible and within a few blocks of Chicago's great medical center. The rooms are well ventilated, heated, and lighted. There are two amphitheaters, four commodious lecture halls and many clinic rooms. The laboratories occupy two entire floors. There are also library and reading rooms, drug room, also receiving and retiring rooms.

Bennett Medical College determined to hold its rank as one of the leading medical colleges in this country last year erected a large building to the east of the main structure. This new and modern building is used for the accommodation of the laboratories, devoted to the study of physiology, anatomy, chemistry, pathology, bacteriology, histology and pharmacology.

The building extends eighty feet along Ada street and has a depth of over sixty feet. It is of pressed brick construction, trimmed with stone and four stories high.

The ground floor is for the free and easy use of the student body. A smoking room has been provided with lockers and everything that is necessary for the comfort and accommodation of students.

One large floor is devoted exclusively to the study of modern medical and theoretical chemistry. This difficult and fascinating science has become a very important factor to the medical student and ranks in importance with anatomy and pathology. The chemical laboratories are fitted up with modern work desks and tables, with running water, gas, fume-chambers and all the necessary appliances for teaching inorganic chemistry, qualitative and quantitative analysis, volumetric analysis, as well as the most advanced organic and physiological chemistry; modern medicine demands a very exhaustive study of this science, and we are prepared to meet that demand.

The laboratories devoted to histology, embryology, pathology, bacteriology, and neurological anatomy occupy another floor, where all the necessary apparatus is installed for teaching these sciences in the most approved manner. No pains nor money is spared to give the students of Bennett Medical College every

opportunity for acquiring a knowledge of these important sciences equal to that enjoyed by the students of any of the large universities and colleges anywhere in the country.

The top floor of the new annex is devoted to the study of anatomy. As all who are versed in the subject of the history of medicine know, an intimate first hand knowledge of the structure of the human body is essential for the successful practice of any branch of medicine or surgery, and one of the most hopeful signs for the success of the great movement that is at the present time taking place in medical educational methods is the prominent place that all medical educators are giving to the subject of anatomy. The entire top floor is equipped for the proper study of this science. The rooms are light and airy and are arranged according to the most approved sanitary ideas.

Each floor is provided with lecture rooms for classes, private rooms for professors, and for students who wish to devote time to some piece of research work.

By utilizing her unexcelled clinical advantages Chicago offers exceptional opportunity to summer students. The summer is the season of the greatest mortality, and there are important groups of diseases to be seen in that portion of the year only, moreover, the problems of medicine, surgery and obstetrics are presented under peculiarly difficult conditions during the heated term. Hence the value of practical work in diseases peculiar to the season.

LIBRARY.

The Library is situated on the second floor in a room removed from the general lecture rooms, which insures a quiet place for reading. The students are required to exercise a habit of silence while in this room.

The Library of the late Professor Anson L. Clark, donated by his heirs, and other acquisitions, have added hundreds of volumes.

Daily current medical periodicals are kept on file by the Librarian. The standard text and reference books on the subjects taught in the college are found here. The books are catalogued and under the supervision of a Librarian who is responsible to the faculty for the proper care of this room.

The Library is accessible to students at any hour during the day, and is amply provided with conveniences. The Librarian or an assistant will be present from 9 A. M. till 5 P. M.

HOSPITALS.

The College Hospital, known as the Jefferson Park Hospital, is a part of Bennett Medical College and is located at 1421 West Monroe street. The college by contract of affiliation has full control of the Hospital.

It has a capacity for fifty beds. It has an amphitheater capable of seating eighty students, so arranged that each student has a plain view of the pit.

The junior and senior students are required to attend clinics in this hospital daily. The students from the senior class do externe work in this hospital, two serving at one time. During this time they write histories of the patients, do the hospital laboratory work, give anesthetics under the supervision of the interne, and assist in all operations.

RECEPTION OF WOMEN.

Women are admitted on the same condition as men. In no field of labor have women so great an advantage as in the practice of medicine, and the eminent place which our graduates have taken in the profession testifies that our school is preeminently adapted to develop that independence of character which qualifies women to undertake the arduous duties and to make a success of medical practice. Women are given the same instruction as men in all branches of medicine and surgery.

DIRECTIONS TO STUDENTS.

Students coming to Chicago with the purpose of attending lectures are advised to come directly to the college, 1360 Fulton street, where all necessary information will be given. Bennett College takes an active interest in her students and secures for them positions where they may earn their board, room, etc. Any young man or woman will be given such an opportunity if they will write the college at least 30 days before the opening of the school. A committee of the College Young Men's Christian Association will also assist in locating students in suitable rooms. Special care is taken to select private boarding houses, where students may have the comforts of home and a quiet room in which to pursue their studies. Board and room can be had at $4.00 to $6.00 per week. Students often procure a room and board themselves, thereby reducing the expense to below $3.00 per week.

A students' aid department is maintained under the direction of the Business Manager. This department is in touch with stores, shops, homes and street and elevated railways, where competent help is desired for short hours. These positions, when possible, are filled from the ranks of our students. Any student may apply to this department for aid. Those desiring further or more specific information should correspond with the college.

REQUIREMENTS FOR ADMISSION.

A medical education must be based upon a thorough preliminary training and every student preparing to take a medical course should have as a minimum amount of preparation a high school course of four years of nine months each. Those who do not possess a diploma or certificate showing the required preliminary education may take an examination conducted by the state superintendent of public instruction or like state officer. The entrance examination will be in conformity with the requirements of the State Board of Health, which include an examination in all the several branches embraced in the curriculum of a four year high school course. Students who are deficient in educational requirements for admission are advised to consult with the college as to the best methods of preparation. The university offers in its academy excellent facilities for premedical education. Most state boards of health require each applicant for a state certificate to present evidence of his preliminary education with his medical diploma, at the time he takes the examination for such certificate. An applicant for admission to Bennett Medical College must fulfill the following conditions:

First: A creditable certificate of moral character, signed by two physicians of good standing in the state from which he comes.

Second: He must deposit with the college the sum of $5.00 for matriculation and present a diploma of graduation from a literary or scientific college or high school or pass a satisfactory examination in conformity with the requirements of the State Board of Health.

ADMISSION TO ADVANCED STANDING.

Students from fully recognized colleges will be given credit for the time spent in these colleges upon presentation of credits for work done and a certificate of attendance. Graduates from

recognized colleges of medicine will be admitted to the senior year without examination.

REQUIREMENTS FOR GRADUATION.

1. Attainment of 21 years of age.
2. Credible certificate of good moral character.
3. Satisfactory behavior while in college.
4. Attendance on four courses of medical lectures of at least eight months each in separate calendar years.
5. Regular attendance during the course on lectures and quizzes.
6. Regular attendance on clinics.
7. Satisfactory examination in all branches, and attendance upon clinics, with a rating of not less than 80% average.
8. Attendance on two courses of lectures in anatomy and dissection of a lateral half of the human body.
9. Graduation fee of twenty-five dollars.

COLLEGE FEES.

A matriculation fee of $5.00 will be charged on entering.

Fee for the first year	$125.00
Fee for the second year	125.00
Fee for the third year	125.00
Fee for the fourth year	125.00
Fee for the fourth year in obstetrics	5.00

Laboratory, no charge except for breakage.

Each student will be required to deposit with the college $5.00 as security against damage to laboratory or college furniture, the balance to be returned pro rata.

GENERAL PLAN OF THE CURRICULUM AND SCHEDULE IN HOURS.

The regular course of study in the Bennett Medical College, leading up to the degree of Doctor of Medicine, comprises a four years' course of eight months each.

The arrangement of the subjects and the hours devoted to each is as follows, but the faculty reserves the right to make such changes in the schedule as it may deem advisable:

FRESHMAN YEAR.

Subjects	Recitations	Laboratory	Clinics	Total
Inorganic Chemistry	60	60	...	120
Anatomy	90	360	...	450
Histology	30	120	...	150
Physiology	60	240	...	300
Materia Medica	60	30	...	90
Pharmacology	30	30	...	60
Medical Zoology	30	15	...	45
Dietetics	30	...	...	30
	390	855	...	1,245

SOPHOMORE YEAR.

Subjects	Recitations	Laboratory	Clinics	Total
Physiology	60	120	...	180
Anatomy	75	240	...	315
Physiological Chemistry	30	60	...	90
Organic Chemistry	60	30	...	90
Therapeutics	60	...	...	60
Bacteriology	45	90	...	135
Pathology	120	120	...	240
Hygiene	30	...	...	30
Minor Surgery	30	...	...	30
Physical Diagnosis	30	...	60	90
Embryology	30	...	...	30
	510	530	60	1,200

JUNIOR YEAR.

Subjects	Recitations	Laboratory	Clinics	Total
Medicine	120	...	120	240
Obstetrics	60	...	...	60
Surgery	120	...	120	240
Gynecology	30	...	...	30
Pediatrics	60	...	30	90
Neurology	60	...	...	60
Electro-Therapy	30	...	...	30
Genito-Urinary Diseases	30	...	30	60
Dermatology	30	...	30	60
Rhinology, Otology and Laryngology	30	...	...	30
Therapeutics	60	...	...	60

Ophthalmology	30	...	...	30
Clinical Diagnosis	30	30	...	60
Physical Diagnosis	40	...	60	100
	730	30	390	1,150

SENIOR YEAR.

Subjects	Recitations	Laboratory	Clinics	Total
Medicine	60	...	240	300
Obstetrics	60	...	60	120
Surgery	60	...	240	300
Gynecology	30	...	120	150
Pediatrics	..	...	60	60
Ophthalmology	..	...	30	30
Rhinology, Otology and Laryngology	..	...	60	60
Neurology	30	...	60	90
Dermatology	30	...	60	90
Genito-Urinary Diseases	..	...	30	30
Medical Jurisprudence	30	...	...	30
	300	...	960	1,260

Total number of hours.....4,855

STANDING OF STUDENTS AND EXAMINATIONS.

The standing of each student will be determined by the professor or instructor in charge of the chair, and the grade will be made up from his class quizzes and written examinations. Each student is required to have at least 80 per cent of attendance, to be punctual and regular in attendance on the exercises of his year, and to take the examinations that are required by the instructor and that are indicated in the course of study. The grades will be on the scale of 100. 90 to 100 passed with distinction; 80 to 90 passes; below 80 fails.

Students of the first, second or third year who are conditioned may have another written examination at the opening of the succeeding term, or they may repeat the study during the summer semester and be examined with the next class. Students who have failed in three branches or are conditioned, in a majority of studies in any year must repeat the year's course.

HOSPITAL POSITIONS.

House physicians are appointed from each graduating class to serve as internes, thus giving those who desire to avail themselves of this opportunity a most thorough and practical finish. Fifty internes are chosen by competitive examination to serve eighteen months in Cook County Hospital.

Bennett students are eligible to compete for these, as well as positions as internes in thirty other hospitals in Chicago and vicinity. This year every graduate who so desired was furnished with a hospital interneship.

Internes are given their board, room and laundry for their service in the hospitals. These appointments are of great value, and are much desired and sought after by the young medical graduate of today.

POST-GRADUATE COURSE.

The advantages offered practitioners by this college for a post-graduate course are excellent. The studies in the senior year work are practical in every particular. They are supplemented by a variety of daily clinics in which there is opportunity for practitioners to become familiar with the latest methods, both in diagnosis and treatment. Facilities will be furnished those who desire to pursue any particular line of work. Special advantages are extended to those who desire temporary appointments as clinical assistants.

Practitioners can enter at any time and can take the work in any department of the regular course of study at moderate cost. Any practitioner of medicine in good standing may take this course.

Graduates of recognized medical colleges may, by attending one full college year and fulfilling the requirements, receive the regular diploma from Bennett Medical College. This plan of post-graduate work is recommended, as it offers to the practitioner the advantages of a recent college course.

It gives a practical finish to his education which cannot be obtained in any other way.

The following are the names and positions secured:

COOK COUNTY HOSPITAL.

Apking, A. C.
Shambaugh, C. J.
Cook, Frances H.
Westaby, R. S.
Paradine, D. J.
McHugh, F. T.

ROBERT BURNS HOSPITAL.

Welsh, F. M.
Leach, M. A.

ROCKFORD HOSPITAL.

Metherell, G. E.
Hack, E. C.

ST. ANN'S HOSPITAL, CHICAGO.

Hazen, C. M.
Montgomery, R. C.
Schroeder, J. E.

COLUMBUS HOSPITAL.

Taylor, H. A.

ELGIN HOSPITAL FOR THE INSANE.

Spangler, F. E.

JEFFERSON PARK HOSPITAL.

Watson, J. E.
Andrews, C. W.

DEPARTMENT OF ANATOMY, HISTOLOGY AND EMBRYOLOGY.

ARTHUR B. RANKIN, B. A., M. B., Professor and Head of the Department.

J. J. MONAHAN, M. D., Assistant Professor.

WALTER F. VON ZELINSKI, M. D. R. O. HOWSER, M. D.

Prosectors: E. ANGUISH, J. F. CARMICHAEL, B. A., L. L. B., HERBERT CLAY, E. G. CONN, E. O. DAHL, B. E. PECHOUS, A. B., C. C. SKINSNES, GEO. B. THOMAS, W. C. OVERHALSER.

The Anatomical Laboratory has been pronounced as one of the finest in the country. The abundance of dissection material gives the student the opportunity of examining many dissections of each part of the body. Special dissections are made by the demonstrators and prosectors to supplement the lecture course, and rigid quizzes are given on every part of the subject.

Since Anatomy, Histology and Embryology are the fundamentals of the science of medicine, an attempt is made to so correlate these subjects that the student is given a concrete presentation of each part of the human body.

ANATOMY.

Freshman Year: The study of the bones (osteology), muscles (myology) and articulations (arthrology), is taken up in the first semester. The lectures are followed by demonstrations and quizzes by the laboratory assistants. Dissection of two parts of the cadaver is completed during the latter part of the first semester and the whole of the second semester. The class is divided into small sections so that each student has the benefit of the personal attention of the department staff. The head of the department examines each student on the different stages of the dissection, which is made under the supervision of the demonstrators and prosectors.

Sophomore Year: Dissection of the remaining parts of the body, continuing over the whole year. Lectures are given with demonstrations from recent dissections prepared by the prosectors. Each section of the class is carefully coached on each dissection by the assistants and must submit a complete dis-

section of each part on which he is examined by the head of the department.

Nervous Anatomy: The anatomy of the brain, spinal cord, cranial nerves and special sense organs is studied from especially prepared macroscopic and microscopic preparations. This course extends over the entire year and is conducted in the same manner as the other departments of anatomy.

At the completion of the sophomore year, the student must present evidences of the dissection of a lateral half of the body and credits for attendance upon lectures, recitations and quizzes.

Topographical Anatomy: This course is given in the second semester. Sections at various levels of the body and of the extremities are used to illustrate the normal relations of the organs to one another.

Junior and Senior Years: Surgical operations are illustrated on the cadaver by special dissections, in which each student must take part. The correlation between the regular surgical lectures and this course, is such that the student gets an actual demonstration on the cadaver, of the surgical procedures.

HISTOLOGY AND EMBRYOLOGY.

This course includes a study of the origin and characteristics of all tissues and organs; instruction in the methods of preparing tissues for microscopical examination and the relation of the physiology of the organ to its microscopical characteristics.

The course is divided as follows:

(a) *Cystology and Histology of the Normal Tissues:* The study of the cell, its structure and methods of reproduction; segmentation and development of the embryo; the structure and development of the normal tissues.

(b) *Embryology and Histology of the Human Organs:* From dissection, special preparations and models, the student is led up to a thorough microscopical study of the structures of the foetal and adult human organs. The histology of the blood and nervous system is studied in the department of Physiology and Physiological Chemistry.

Text-Books: Piersol, Cunningham Manual of Dissection, Bailey.

DEPARTMENT OF PHYSIOLOGY.

M. A. Lane, Sc. B., Professor and Head of the Department.

Experimental Physiology: The subject of Experimental Physiology is taught in the first two years of the medical course. In this work the student becomes acquainted with the main facts of physiology, chiefly by means of experiments, which he himself must make in the laboratory and demonstrate to the instructors. The student is required to inform himself in advance as to the nature of the experiments he is required to make, their relation to the facts of the living body, and the theoretical reasons for the actual results he secures. In this way he is trained in the use of instruments of precision, familiarizing himself, at least in a measurable degree, with the theoretical considerations on which the instruments themselves are based.

Part of the first year of this work is devoted to a study of the physiology of the circulating liquids of the body—the blood and lymph—to the physiology of the vascular system, and to the physiology of respiration and secretion.

In these courses are considered the chemical and physical characters of the blood, together with the morphological significance of its formed elements; the main facts of the circulation of the blood and lymph, by observation and experiment, including a detailed study of the structure of the heart, and hydraulic experiments with that organ; the facts of respiration in the lungs and in the tissues; and the nervous mechanism of secretion, with microscopic demonstration of the visible changes that take place in the gland-cell during the act of secretion.

A pre-requisite to the first year's work in Experimental Physiology is an introductory course in biology and plant physiology, or its equivalent. In this course are studied the anatomy and physiology of the plant cell, and the main facts of animal morphology.

In the second year are considered the physiology of digestion, absorption, excretion, nutrition, metabolism and heat; and the physiology of muscle, of nerve, and of the central nervous system, and of the senses. The laboratory work in these courses consists of well-known experiments which place conspicuously before the mind of the student the broad experimental facts on which is based the modern view of the animal body as a chemo-physical mechanism. The appeal is made directly to the student by the work he does with his own hands. He is required to

record in his note-book the results of his experiments, failures as well as successes, and to submit these notes as evidences of work done.

A close touch will be maintained between the laboratory and the lecture-room. Class, or class-sections, will time their laboratory experiments with the matters under discussion, and student groups in the laboratory will discuss on the spot experiments and their results. In case of failure in experiments, the work is supposed to be re-done whenever that is possible.

Physiological Chemistry: In this course, which is to be given in advance of the above courses in digestion and metabolism, the student familiarizes himself with the main facts of the chemistry of the animal body. A knowledge of the proximate principles of the body and their reactions outside of the body, is essential to any adequate understanding of the chemism of the living body itself. Lectures, recitations and laboratory.

DEPARTMENT OF PATHOLOGY, BACTERIOLOGY AND HYGIENE.

A. M. Stober, B. S., M. D., Professor and Head of the Department.

Harry L. O'Connor, B. S., M. D., Professor of Pathology.
Theodore C. F. Abel, M. D., Professor of Sanitary Science.

Laboratory Assistants: Thomas C. Jones, A. J. Stokes, J. Liebau, Wm. J. Byles, B. J. Musselwhite, B. E. Pechous, A. B.; H. L. Jordan.

Pathology: The subject of Pathology is taught in the Sophomore and Junior years, and will consist of lectures, quizzes, laboratory and clinic demonstrations on General, Special, Surgical, Bacteriological and Post-mortem Pathology. The lectures will be plain and practical on account of the constant use of morbid anatomic and histologic specimens. A protojectoscope will be used in illustrating all pathologic conditions as they come under practical observation. One of the features of the course will be the pathology of tropical diseases; special mention will be made of their etiologic factors, and the various methods applied in their diagnosis.

Bacteriology: The work in Bacteriology will be given in connection with the subjects of Pathology and Hygiene, and will be divided into General and Special, covering the two semesters

of the Sophomore year. The study of pathogenic and non-pathogenic organisms will be given, together with their relation in disease. Various animals will be used in illustrating the effects of micro-organisms on tissues. The student will prepare the ordinary medias and conduct a systematic investigation of each organism, performing the various methods of staining and other technic used in the cultivation of bacteria from the human body, air, water and soil.

Autopsies: In the didactic work, the student is given the methods of performing a Post-mortem examination. Inspection and section of the body is given in detail. In connection with the Autopsy work at the Cook County Hospital, which the student is supposed to attend once a week, a large number of autopsies will be held on animals experimentally inoculated in the college laboratories.

Laboratories: The Pathological and Bacteriological laboratories are found on the fourth floor of the main building. They are well ventilated, clean, and with the advantage of the north light for microscopic work. The laboratories are well equipped with apparatus for all kinds of work in Pathology and Bacteriology and include microscopes, complete with oil immersion lens, apparatus needed for preparing culture medias, etc. A large assortment of reagents and carefully prepared museum specimens of pathological conditions are found.

Clinical Laboratory: A special laboratory on the third floor of the main building, equipped with the necessary apparatus and reagents for making complete microscopic, chemic, bacteriologic and pathologic examinations will be in constant use. Patients coming to the clinic, requiring special examinations will be sent to this laboratory, where a careful investigation will be made by the students under the supervision of the pathologist. The various practical clinical examinations of the blood, urine, sputum, stomach contents, pus and exudates, will be given, in connection with their clinical significance. The Wasserman reaction, the opsonic index, and the use of vaccines will also be made.

Text-Books: Delafield and Pruden's, Coplin's, Mallory and Wright's Pathology; Jordan, Muir and Ritchie, MacFarland's Bacteriology; Simons, Todd, Faught, Laboratory Diagnosis.

DEPARTMENT OF THERAPEUTICS, MATERIA MEDICA AND PHARMACOLOGY.

William Francis Waugh, M. D., Head of the Department, Clinical Therapeutics.

Richard Jay Lambert, M. D., Ph. G., Drug Therapeutics.
Elmer Holmes Flinn, Ph. G., M. D., Materia Medica.
Harold Hamilton Redfield, M. D., Applied Therapeutics.
George Louis Secord, Ph. G., Pharmacy.
Thomas A. Hogan, M. D., Phthisiotherapy.
J. Favill Biehn, M. D., Laboratory Toxicology.

The advantages of uniformity in teaching are so evident that we have adopted the schedules for this department recommended by the Council of Medical Education of the American Medical Association and arranged our course as nearly as deemed advisable in accordance therewith.

In the Pre-Medical and Freshman years, Prof. Secord gives a didactic and laboratory course on Pharmacy, Pharmacognosy, Prescription Writing, Incompatibles, etc. This occupies two to four hours each week.

Prof. Flinn gives the Freshman course in Materia Medica, embracing dosage and classification and allied topics; two hours each week.

In the Sophomore year, Prof. Redfield gives an hour each week to Experimental Therapeutics, and Prof. Lambert two hours weekly to Didactic Therapeutics, and the physiologic powers and therapeutic applications of remedies.

During the Junior year, Prof. Redfield gives the course on Applied Therapeutics, taking up the treatment of the principal indications and treating of remedies from the standpoint of the patient.

In the Senior year, Prof. Waugh gives a weekly clinic, at which the application of remedies to the conditions presented by the patients is exemplified.

Wood's Therapeutics and the U. S. Pharmacopoeia are the official text-books of this department for the early years, with Waugh's Text-Book for the Junior and Senior years.

PHARMACY.

George Louis Secord, M. S., Ph. G., Professor of Pharmacy.

The subject of Pharmacy is taught from the standpoint of the physician, and will include a consideration of the subject from both a didactic and laboratory standpoint.

Professor Secord will devote four hours per week to the subject during the second semester. The beginning lectures will comprise the various official standards, with the methods of compilation, the pharmacal processes, metrology, percentage, pharmaceutic arithmetic, and a general consideration of specific gravity, and specific volume as applied to the pharmacopoeial substances.

Following this, the pharmacopoeial preparations will be studied and especial attention given to their classification, synonyms, composition and percentage strength.

The art of prescription writing will be considered in all of its various phases and repeated individual drilling, in form, neatness, construction, palatability, dosage and the various forms of incompatibility will be given.

The laboratory instruction will follow closely upon the lecture work, thereby more firmly impressing the theoretical part of the course.

DEPARTMENT OF PHYSIOLOGIC THERAPEUTICS.

Noble M. Eberhart, A. M., M. S., M. D., *Head.*
Gordon G. Burdick, M. D.
Chas. S. Neiswanger, M. D.

Realizing the importance of the application of therapeutic agents outside of drugs, the College has established a Department of Physiologic Therapeutics, which will include instruction in the use of all electrotherapeutic measures (including galvanism, faradism, high frequency, X-ray, etc.), and will also include vibration, phototherapy, hydrotherapy, psychotherapy, serotherapy and other non-drug methods.

Instruction in the X-ray will be supplemented by practical work in the Jefferson Park Hospital, where students will be taught the technique of making and interpreting X-ray pictures, under the supervision of the Head of the Department.

Dr. Eberhart's text books will be followed in electro-therapeutics. Other recommended text-books will be announced.

DEPARTMENT OF MEDICINE.

Wm. J. Pollock, M. D., Head of the Department.
N. A. Graves, A. B., M. D.
John Vosburg Stevens, M. D.
Samuel A. McWilliams, A. M., M. D.
Roland H. Phillips, Ph. G., B. S., M. D.
James Granville Mastin, M. D.
Charles Albert Wade, M. D.
Oscar Brunk Funkhouser, M. D.
Henry Robert Harrower, M. D.
George F. Pierce, M. D.
F. D. O'Brien, M. D.
E. J. Kieffer, M. D.
O. M. Knox, M. D.
L. Steiner, M. D.

COURSE I.

This course begins in the Sophomore year on the subject of Physical Diagnosis. The subject is taught by lectures, quizzes and clinical work under the direct supervision of the instructor. The student is first taught the normal sounds and the conditions so that he may be better able to study and distinguish the abnormal sounds. Abundant clinical material affords the student excellent opportunity to become proficient in making examinations. Each student will be required to attend these clinics a specified time so that they may combine the practical work of this subject with the text-book study. One hour per week recitation and two hours per week clinical work will be required to complete the course.

COURSE II.

The subject of Clinical Diagnosis is taught in the Junior and Senior years and is very largely laboratory work. The student will be required to make examinations of the urine, sputa, stomach contents, and make blood counts on all clinical material which requires such examinations, thus making them proficient in the work. The report of such examination is to be filed with the history of the case for record and as an aid to the clinical instructor. The laboratory work will be supplemented with lectures and quiz work on the subjects taught under this heading. An average of two hours per week will be required for this course.

COURSE III.

This course will be on the important subject of Diseases of Children. The subject will be taught to the Juniors by recitations and clinics three hours per week. A thorough course on infant feeding has been planned, including the artificial foods and their respective values and the modifications of foods. Lectures and quizzes on all the diseases of infancy and childhood will be a regular part of this course and the abundant clinical material at our free clinic will give ample opportunity for the student to become familiar with the clinical forms of the diseases and watch the results of careful medication.

COURSE IV

General Medicine: This course has been very carefully graded and is given to the Junior and Senior students.

We fully realize that after students have received instruction in the fundamental branches, that this is their most important study, for when they begin actual practice, they will see and treat more cases in general medicine, than in all the other subjects put together; therefore, we aim to make the instruction in this branch so thorough that when the student has finished the course, he will be able to diagnose and treat intelligently any of the diseases in general medical practice.

It is our aim to give the students confidence in medicine, and to drill them so thoroughly in the application of remedies to certain definite diseased conditions, that they may get the best possible results from the use of such remedies.

In the Junior year, we are allotted eight hours per week for this subject and the course consists of lectures, recitations, and clinics, particularly of the class of cases that are covered in the recitation work, so that each disease, as far as possible, is illustrated in this manner.

In the Senior year, we also have eight hours per week devoted to general medicine and in this year of the work, it is our aim to teach everything that is practical in general medicine so that when the student leaves the college, he will go with that confidence in medicine that he will apply it successfully and he will go with the idea that he must study each individual case and apply his remedies according to the conditions found present.

Text-Books: Anders, Waugh, French, Tyson, Osler.

DEPARTMENT OF SURGERY.

John Dill Robertson, B. S., M. D., Head of the Department.
Eugene Solomon Talbot, Ms., D. D. S., M. D., LL. D.
William Beringer Marcusson, B. S., M. D.
Anton T. D. Holmboe, M. D.
Benjamin H. Breakstone, B. S., M. D.
Frank Byrnes, M. D.
Jeremiah Henry Walsh, M. D.
Thomas Downes Laftry, M. D.
Thomas Henry Kelly, M. D.
Hugh Neil Mackechnie, M. D.
Daniel H. Cunningham, M. D.
C. W. Clark, M. D.
John J. Meany, M. D.
James J. McGuinn, M. D.
Albert Howard Carter, M. D.
A. C. Garvy, M. D.
J. H. Edgecomb, M. D.
J. A. Wood, DD. S.
Albert J. Croft, M. D.
D. P. Miller, M. D.

In this department everything pertaining to the Science and Art of Surgery is carefully taught. The student begins his training in this very important department at the beginning of his second year. Here he is taught Asepsis and Antisepsis, the preparation of the patient for the operation, the preparation of the surgeon to do the operation, the sterilization of instruments, gowns, gauze dressings, the use of rubber gloves and all the small, but most essential, details of modern surgery.

In the third year the work begun in the second is continued and the heavier work of Surgical Anatomy is taught and each student is required to do the various surgical operations upon the cadaver, under the supervision of the instructor of this department.

During this year he is required to attend clinics at the Jefferson Park and Cook County and other hospitals and take his turn in assisting in major as well as minor operations. He is taught to give anesthetics, to properly conduct himself in the operating room and to observe all the rules of modern Asepsis. In the fourth year this work is completed. At the end of the college course each student is thoroughly conversant with the modern surgical practice.

At the hospital and dispensary clinics, the Senior students give anesthetics, carefully watched by a graduate physician. This cannot be said of many medical colleges. Our faculty believes that the graduates from Bennett College should not be mere theorists, but practical men and women.

Text-books: Dacosta, Rose and Carless.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY.

Henry Foster Lewis, A. B., M. D., Head of Department.
William Alexander Newman Dorland, A. M., M. D.
William Rittenhouse, M. D.
Stuart Johnstone, M. D.
Clarence Dryden Barker, M. D.
Arthur Edison Gammage, M. D.
Alfred de Roulet, M. S., M. D.
Thomas Albert Carter, M. D.

This course is conducted throughout the third and fourth years. The instruction comprises lectures, recitations, demonstrations, out-patient and hospital clinics and exercises with the mannikin.

Junior Year: Lectures and recitations on the anatomy and physiology of the female genital organs; the physiology of pregnancy, labor and the puerperal state.

Clinics at the Jefferson Park and other hospitals on Midwifery and the Diseases of Women.

Senior Year: Lectures and recitations on the pathology and treatment of the female genital organs; the pathology of pregnancy, labor and the puerperal state.

Clinics at the Jefferson Park Hospital, Cook County Hospital and other hospitals on Diseases of Women and Midwifery.

Clinics at the College Dispensary and other dispensaries on Diseases of Women.

Practical exercises with the obstetric mannikin.

Personal attendance of students at cases of labor at the Jefferson Park Hospital and elsewhere and at the homes of patients under the charge of an instructor. This course will be required of each senior student as a requisite for graduation. To cover the extra expense of this course, each senior student will be charged a fee of five dollars.

Personal attendance at operations and in the wards of the Jefferson Park Hospital and elsewhere, where the students in rotation will be required to assist in the diagnosis and treatment of patients under the personal charge of members of the faculty.

Text-Books: Dorland's Modern Obstetrics; Peterson's Practice of Obstetrics; Crossen's Diseases of Women.

Each student is expected to own one or more of these text-books.

DEPARTMENT OF OPHTHALMOLOGY.

J. F. Burkholder, M. D., Head of the Department.
Douglas A. Payne, M. D.
C. B. Wagner, M. D.
Elzear La Mothe, M. D.

The work in this department is designed to meet the requirements of those intending to become general practitioners of medicine. The instruction is thoroughly practical and consists of the following courses:

COURSE I.

Junior Year: A lecture and conference course covering the entire field of ophthalmology with a review of the anatomy and physiology of the eye. In presenting this subject charts, models, the schematic eye, pig's eyes and dissections on the cadaver will be made use of.

One hour a week, 30 hours.

Text-book: May.

COURSE II.

Senior Year: A clinical course in Ophthalmology, given in the dispensary of Bennett Medical College, Jefferson Park and other hospitals. The class is divided into small sections, and each student is required to do practical personal work in the diagnosis and treatment of diseases of the eye.

The clinical material is abundant, giving the student an opportunity to see a great variety of this class of cases. During the course various operations for lens extraction, pterygium, strabismus, etc., will be performed and the use of the ophthalmoscope and other instruments used in ophthalmology carefully taught, as well as the indications for prescribing glasses for the relief of headache and other symptoms.

One hour a week, 30 hours.

Reference books: May, Fuchs, DeSchweinitz.

DEPARTMENT OF OTOLOGY, LARYNGOLOGY AND RHINOLOGY.

Hugh Blake Williams, M. D., Head of the Department.
S. S. Bishop, B. S., M. D., LL. D.
Edwin Pynchon, M. D.
Ulysses J. Grim, M. D.

The work is designed to meet the requirements of those intending to become general practitioners of medicine. The instruction is thoroughly practical and consists of the following courses:

COURSE I.

A lecture and conference course covering all the diseases of the ear, nose and throat with a review of the anatomy and physiology of these parts.

One hour a week, 30 hours.

Text-books: Bishop, Lenox, Brown.

Reference books: Grunwald's Atlas.

COURSE II.

Senior Year: A clinical course in diseases of the ear, nose and throat given in the dispensary of Bennett Medical College and the Jefferson Park Hospital. The classes are divided into small sections and the students required to diagnose and treat the cases as they present themselves. The student becomes familiar with the use of the head mirror, nasal and aural specula, laryngoscope, tuning forks, etc. During the course the various operations for mastoiditis, and the removal of tonsils and laryngeal growths are performed by those in charge of the work.

Two hours a week, 60 hours.

Text-books: Bishop, Adam, Politzer, Brahe-Politzer Atlas.

DEPARTMENT OF DERMATOLOGY.

D. Lieberthal, M. D., Head of the Department.
C. W. Winne, Ph. G., M. D.
K. A. Zurawski, B. A., M. D.

With the rapid advances in every branch of medicine, dermatology has kept pace. The teaching in this course is so divided as to make the work both sequential and comprehensive. In the Junior year the foundation is laid by a broad view of the elementary and fundamental principles of dermatology and of the various methods of diagnosis. The subject is taught by didactic and clinical lectures, quizzes and recitations, two hours per week.

The work in the Senior year consists of clinical work in the dispensary which is eminently practical and a special feature, where an abundance of material is always on hand, affording each student an opportunity to personally examine, diagnose and prescribe under the supervision of their professors.

Text-books: Morris, Jackson, Stelwagon, Crocker.

DEPARTMENT OF GENITO-URINARY DISEASES.

Felipp Kreissl, M. D., Head of the Dept.
S. A. McWilliams, A. B., M. D.
Walter T. Venn, M. D.

The work in this course is carried on by recitations and clinics and all of the diseases of the Genito-urinary system are studied in the Junior year, and final examinations given on them so that the Senior year will be devoted wholly to clinical work.

The clinical work is conducted in the college building every afternoon between 2 and 3 p. m. except Sundays. Also at the Jefferson Park and other hospitals, where there is an abundance of clinical material.

The student is required to make personal examinations of the patients, practice catheterization under the direction of the clinician, make numerous urinary examinations, and examine the various excretions. He is taught the use of the cystoscope and other instruments used in this class of cases.

The Wasserman test for syphilis is exemplified and explained.

DEPARTMENT OF NERVOUS AND MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

Edgar Mead Reading, A. M., M. D., Head of the Department.
Thomas S. Crowe, M. D.
Nathaniel H. Adams, Ph. M., M. D.
H. G. W. Reinhardt, M. D.
Charles J. O'Connor, LL. B.
Thomas Hogan, LL. B.
John Tyrrell, A. B., LL. B.

The prevalence of nervous and mental disease is steadily on the increase and the developments in this branch of medical science are a revelation to the practitioner of a generation ago. The medical student of today must devote as much study to this branch alone as was formerly given to the whole subject of the Practice of Medicine.

COURSE I.

The diseases of the brain and nervous system are taught to the Junior class by lectures, recitations and clinics three hours per week. At the beginning of each year a short time is spent on the physiology and anatomy of the nervous system before taking up the diseased conditions. The Senior year the subject will be more thoroughly considered and a larger amount of time devoted to clinical instruction.

COURSE II.

This course is taught to the Senior class and deals with the legal subjects of interest to the medical graduate. The subjects of malpractice, expert testimony, the legal aspects of impotency, sterility, rape, pregnancy, legitimacy, infanticide, wounds, poisons, feigned disease and survivorship are thoroughly discussed.

COURSE III.

The legal aspects of insanity in all of its different forms are studied in this course, and cases are cited where decisions on such cases have been made and the position which the general practitioner and the expert holds in giving testimony in these cases.

Text-book: Dana.

CHEMISTRY AND TOXICOLOGY.

THEODORE SCHULTE, Ph. D., S. J., Head of the Department.
GUSTAVE J. JACOBS, M. D.
B. E. PECHOUS, B. A.

COURSE I.

General Chemistry, Freshman Year.—In this course the pupil studies the properties of the more common elements and their compounds. The laboratory work is regarded as of the utmost importance.

The student is supplied with an outfit containing beakers, blow pipes, litmus papers, flasks, funnels, test tubes, pipettes, bunsen burner, porcelain dishes, platinum wire and foil, glass tubing and rods, burettes, reagents in bottles, army scales and all necessary material for doing the work outlined in this department.

Analytical Chemistry follows the preceding course in the Freshman year. Stress is laid on those determinations which have a direct bearing on Physiological Chemistry.

Organic Chemistry.—Last term of Freshman year. This course, consisting of lectures, quizzes and demonstrations, familiarizes the student with the general principles of Organic Chemistry.

COURSE II.

Toxicology.—This course includes a study of all substances that are regarded as poisons, organic and mineral. Special attention is given to symptoms, post-mortem findings, immediate and subsequent treatment.

DEPARTMENT OF DISPENSARY CLINICS.

S. A. McWilliams, A. M., M. D., Head of the Department.
Thomas A. Carter, B. S., M. D., Assistant to the Chief.

Hugh Blake Williams, M. D.
Charles Albert Wade, M. D.
Wm. A. N. Dorland, A. M., M. D.
Walter T. Venn, M. D.
K. A. Zurawski, M. D.
J. J. Monahan, M. D.
A. E. Lehner, M. D.
David O'Shea, M. D.
Thomas Downes Laftry, M. D.
Albert Howard Carter, M. D.
Douglas Amos Payne, M. D.
Elzear La Mothe, M. D.
P. F. Haskel, M. D.
W. A. Porter, M. D.
U. J. Grim, M. D.
Arthur F. Wolford, M. D.
Carl B. Wagner, M. D.
E. E. Bermingham, M. D.
Edith B. Lowry, M. D.

The entire clinic is under the control of the President of the Clinical Staff. The members of the Clinical Staff are in attendance from 2 to 3 P. M., daily, throughout the year, except Sundays and holidays.

Every student is assigned to a given room for a stated period, when he is transferred to another, and in that way each must devote a certain portion of his time to each clinic, and not arrange his time as he pleases.

Students who fall short in their attendance at the regular clinic hours during the year must attend clinical work during the summer in order to make up this time, as no excuse from attending will be accepted.

No student can come up for graduation until his attendance and conduct have received the approval of the Superintendent of the Clinics.

Students, visitors or *patients* are not allowed to smoke or spit in the laboratories, clinic rooms, lecture halls or dissecting rooms; nor to have tobacco in hand or mouth. We teach practical as well as theoretical cleanliness.

No unseemly noises or boisterousness will be permitted in college or clinic.

Students must conduct themselves in a gentlemanly manner in clinic rooms; and patients must be treated with the same consideration as in a private office.

Students are not allowed in any clinic room but that to which they are assigned, except by permission of the doctor to whom they are assigned. Nor can they get credit for attendance unless actually present at roll call and remain in attendance.

All students entering their fourth year must provide themselves with the following instruments: Clinical thermometer, stethoscope, headmirror, ear speculum, ear syringe, nasal speculum, tongue depressor, laryngoscopic mirrors, probes and applicators.

Students not providing themselves with these instruments of diagnosis will not be admitted to work in Physical Diagnosis or clinic rooms.

Text-books: Sahli, Greene, Da Costa, Anders, Cabot.

MATRICULANTS, 1910-1911.

FRESHMAN CLASS.

Adams, Roy C.
Anguish, Eber
Brown, James B.
Barton. Walter C.
Baird, Clinton O.
Bedessen, Philip M.
Boles, Roy
Byles, William J.
†Clay, Herbert
Carmichael, J. F.
Crowe, V. E.
Clarke, J. H.
Conn, E. G.
Davis, Alfred T.
Daiil, Elmer O.
Del Rey, A. A.
England, B. H.
Eckwall, H. J.
Finkelberg, I. L.
Frauer, Edgar A.
Fromm, A. H.
Fowler, Mrs. M. W.
Feser, R. L.
Fraizer, A. J.
Gelder, M. S.
Geiger, J. W.
Hirsch, A.
Hartman, M. L.
Hendrickson, Jesse W.
Hogan, Leo G.
Hyland, Wm.
Johnson, J. P.
Jordan, H. L
Jenson, C. M.
Jonikaitis, John
Jones, Thomas C.
†Kerchner, Mrs. L.
Kelly, Walter L.
Koppa, W. G.
Klamkaski, S.
Livingstone, P. B.
Liebau, John
†Merrill, L. C.
Miller, F. M.
Mueller, L. A.
McDonell, Chas. L.
Melnikoff, L. R.
Marzano, V.
Marzano, Miss V.
Mesirow, W. H.
Minker, Max
Musselwhite, B. J.
Mensch, H. B.
Monaco, A.
McGrath, T. B.
Newman, Leon
O'Hearn, Maurice
Pechous, B. E.
Pomeroy, P. G.
Peters, Roy E.
Pisana, V.
Prohaska, F. B.
Robison, W. D.
Rabb, A. D.
Rongetti, A.
Simons, N.
Skallerup, Wm. M.
Shook, P. D.
Sherman, H. H.
Shipley, J. A.
‡Steetle, Royden
Schwartz, F. J.
Skinsnes, C. C.
Sheeran, H. D.
†Schallmo, J. E.
†Stokes, A. J.
Thomas, Geo. B.
Victorian, E. M.
Waters, W. J.
Walsh, J. J.
Wolin, B.

† Entered Jan. 20, 1911.
‡ Deceased.

SOPHOMORE CLASS.

Abbs, Clarence
Bury, Charles L.
Connor, A. B.
Czachorski, J. A.
Cramer, Melvin
Current, Sherman
Fehl, J. M.
Fulliam, E. B.
Gates, G. F.
Gross, John W.
Groenewoud, J. C.
Gehl, Wm. H.
Hamann, R. E.
Hearn, Harry E.
Herlinger, S. G.
†*Hertel, Paul
Harley, Claude J.
Hundertmark, A. H.
Hutchison, M. R.
Hynes, N. J.
Johnson, A. R.
†Johnson, F. A.
Kellar, V. F.
Kopecky, L. C.
†McKellar, Malcolm
McDermott, L. C.
Mowls, M. J.
*†Mann, S. L.
Magill, A. O.
Magill, S. R.
Nineschik, J.
*†Northcross, Mrs. D. L.
Darche, A. L.
Dodd, John M.
Farber, D. L.
Fishbeck, E. A.
Freeman, H. P.
Ford, W. A.
O'Brien, L. J.
Pflock, J. J.
Pfieffer, Geo. W.
Potter, R. E.
Proulx, Theo.
Robbins, Maurice
Rodaway, R. T.
Robb, H. J.
Smith, E. D.
Southwick, W. W.
Schott, O. J.
Stoycheff, A. D.
Schreck, H. C.
Schmid, C. F.
Schulz, A. W.
Schmidt, K. H.
Thorpe, C. C.
Urkov, J.
Vizgird, J. J.
Vachout, Mrs. M. A.
Voss, F.
Wallin, T. G.
Wolfson, M. B.
Wakeham, J. A.
Washburn, B. E.
† Jan. 20, 1911.

JUNIOR CLASS.

Ahstrom, James F.
Apking, Albert C.
Black, J. E.
Bohl, H. A.
Brunswick, E. L.
Brinkley, John R.
Burdick, Ward P.
Chaffin, W. L.
Cleary, J. P.
Connolly, T. J.
Conrey, George A.
Crawford, P. M.
Crowe, E. A.
Dahl, John A.
Dasse, R. J.
Day, Walter A.
Dixon, C. L.
Dietz, Geo. H.
Ellis, R. D.
Fieldbrave, A.
Fisher, E. F.
Fisk, Roy E.
Freudenberg, J. A.
Fry, J. E.
Gartin, Charles N.
Glickson, Simon
Gray, Wm. O.
Grimes, J. H.
Gunderson, Carl A.
Handlin, D. W.
Hinn, Otto W.
Hinman, R. F.
Hoffstadt, John P.
Holzmann, F. C.

JUNIOR CLASS—Continued

Horn, Max A.
Horning, Victor H.
Johnson, W. R.
Jones, T. G.
Kline, Roy W.
Koehler, H. L.
Krueger, E. H.
Lang, Francis F.
LeBlanc, F. J.
McGuire, H. L.
McNeil, A. G.
McVay, M. J.
McIver, Malcolm
Morris, A. L.
Marnitz, L. J.
Meyers, John
Murphy, R. C.
Mussell, A. R.
Nass, F. G.
Olmstead, L. C.
Ouda, Ignatz
Parker, L. W.
Richardson, W. C.
Rozumski, Michael
Romino-Guiseppe
Rudersdorf, O. L.
Somers, P. W.
Schlack, C. O.
Sheehy, T. J.
Sieminovitz, M. I.
Sloan, E. I.
Stevens, Clark J.
Swafford, H. L.
Stevens, Karl I.
Schroeder, J. E.
Travis, A. R.
Talbott, T. S.
Weymouth, D. G.
Young, H. O.
West, Sylvester
Zimmerman, E. H.

SENIOR CLASS.

Ahrens, Edward Guy
Andrews, Clifford William
Asselin, George Francis
Bunch, Morrell McKinsey
Beeman, Leon W.
Brewer, Claude Jay
Brooks, John Thomas
Brown, William Ebenezer
Carpenstein, Dorothea Barbara
Cauldwell, Earl William
Cook, Frances Helen
Currie, Albert H.
Christenson, Emil Martinus
Cox, Henry William
Dimsdale, Louis William
Etheredge, Maude Lee
Freund, Anton Philip, Ph. G.
Gertig, Marie Magdalene
Grove, S. H.
Hack, Edmund Carl
Hardin, Roy Isaac
Hervey, W. E.
Harris, Ella Elizabeth
Harris, George Dow
Hazen, Chester Mack
James, William Kendall
Kirmse, A.
Look, Sylvester George B. F.
Leach, Milford Arthur
McHugh, Francis Thomas
Montgomery, John Lawrence
Metherell, Gomer Edward
Mundy, Homer Frank
MacBurney, LeRoy
McPhaden, Archibald Carlyle
Millen, Lars Johan
Millis, R. H.
Montgomery, Robert C.
Paradine, Daniel James
Peterson, Carl R., M. D.
Pitts, Howard O.
Ross, Colin Kenneth
Sedlack, Charles A.
Shambaugh, Cleveland James
Spangler, Faith Esther
Stottlemeyer, Silas Jackson
Stewart, Mary S.
Taylor, Homer Alvin
Thomas, William Allen
Vrettos, Andrew
Waite, Willard Scott
Watson, James Eldrige, LL. B.
Welch, Frank Mallory
Wegert, Henry Herman
Westaby, Robert Spencer
Wood, William Wilson
Wolford, A. F.
Wierczinski, S. A.

GRADUATES, MAY 29TH, 1911.

Ahrens, Edward Guy
Bunch, Morrell McKinsey
Cauldwell, Earl William
Cook, Francis Helen
Dimsdale, Louis William
Etheredge, Maude Lee
Freund, Anton Philip, Ph. G.
Hack, Edmund Carl
Hardin, Roy Isaac
Harris, Ella Elizabeth
Harris, George Dow
Look, Sylvester George B. F.
McHugh, Francis Thomas
Montgomery, John Lawrence
Metherell, Gomer Edward
Mundy, Homer Frank
Paradine, Daniel James
Pitts, Howard O.
Ross, Colin Kenneth
Sedlack, Charles A.
Shambaugh, Cleveland James
Spangler, Faith Esther
Stottlemeyer, Silas Jackson
Taylor, Homer Alvin
Thomas, William Allen
Vrettos, Andrew
Waite, Willard Scott
Watson, James Eldrige, LL. B.
Wegert, Henry Herman
Welch, Frank Mallory
Wood, William Wilson
Westaby, Robert Spencer

Eligible for Graduation—Sept. 20, 1911.

Andrews, Clifford William
Asselin, George Francis
Beeman, Leon W.
Brewer, Jay Claude
Brooks, John Thomas
Brown, William Ebenezer
Carpenstein, Dorothea Barbara
Currie, Albert H.
Christenson, Emil Martinus
Cox, Henry William
Gertig, Mary Magdalene
Grove, S. H.
Hazen, Chester Mack
Hervey, W. E.
James, William Kendall
Kirmse, A.
Leach, Milford Arthur
MacBurney, LeRoy
McPhaden, Archibald Carlyle
Millen, Lars Johan
Montgomery, Robert C.
Stewart, Mary S.
Wolford, A. F.

Unclassified:
Alvaroz, L. B.

COMBINED COLLEGIATE AND MEDICAL COURSE.

The college of Liberal Arts in the Loyola University, with which Bennett Medical College is affiliated, offers to students through its Preparatory Department a course especially arranged to fit the need of students preparing to take the Medical Course.

It is recommended that all students who contemplate entering Bennett Medical College take the Preparatory Course. Those who have not completed the four years of High School work should communicate with the Dean of the Institution as early as possible.

The Preparatory Work consists of the following studies:

Each candidate is to show that he is entitled to receive a total of thirty points.

Latin Grammar and Latin Prose Composition, required 2 points.

English Grammar and Rhetoric, required 4 points.

Algebra, required 2 points.

Plane Geometry, required 2 points.

Physics, required 2 points.

History, including Political Economy and Civics, required 2 points.

Total points required, fourteen. Sixteen more points must be earned by a successful examination in a sufficient number of the following subjects: English Language and Literature, 4; Latin to a maximum of six points besides the required two points; German, French, Spanish and Greek, minimum for each, two points, maximum, eight; Solid Geometry, one; Trigonometry, one; Biology, two; Zoology, one; Botany, one; Chemistry, one; Physical Geography, one; Geology, one; Physiology and Hygiene, one; Astronomy, one; Drawing, one, making in all thirty points.

Everything included in this Preparatory Medical Course and in the First Year college course, is taught with the idea of thoroughly fitting the student for the study of Medicine, and no time is lost in those subjects which do not have a direct bearing upon this study.

The avowed policy of the University in all its departments is to encourage in every way the gaining of a broad general education as a foundation for the work of a profession.

In no profession is there greater need for such education than in medicine. As a preliminary step in this direction the Collegiate and Medical Departments offer an optional six-year

course, including two years of collegiate work in arts and sciences, followed by two years of study in the fundamental branches of medicine. Upon the completion of the following two years of clinical study, that is, at the end of the combined six-year College and medical course, the degrees of Bachelor of Science (B. S.) and Doctor of Medicine (M. D.) are conferred.

As an entrance requirement, the student must have completed the Academy or High School course, or its equivalent.

ALUMNI ASSOCIATION.

Bennett College has graduated during the forty-three years of its existence over fifteen hundred men and women. They are located in every state of the Union. Their influence in these states is great and gives to Bennett College a standing that nothing else can give. They are on the various State Examining Boards and Boards of Health. The school is proud of its Alumni.

The Illinois Medical College had been in existence for sixteen years and during that time had graduated eight hundred men and women.

The Alumni of these two schools will be recognized under the name Medical Department of Loyola University and together will form one of the largest medical alumni associations in the City of Chicago.

It is urgently requested that every member of this Association respond to the invitation that will be mailed them to become a part of this great University.

The next meeting of the Alumni Association will be held at the College Building, corner of Ada and Fulton Sts., June 14th, 10:00 A. M.

The officers of the Bennett Alumni are—

E. B. Fulliam, M. D., President, Muscatine, Iowa.
Chas. H. Francis, M. D., Secy., Chicago, Ill.

The officers of the Illinois Alumni are—

Dr. L. C. French, President.
Dr. Oscar Cleff, Secy.-Treas., Chicago, Ill.

Engineering Department

COLLEGE OF ENGINEERING

CALENDAR.

1911.

Sept. 18-19 .....Entrance and conditional examinations.
Sept. 20 .....Registration day.
Sept. 21 .....First Semester begins.
Oct. 12 .....Columbus Day. (Holiday.)
Nov. 30 .....Thanksgiving Day recess.
Dec. 23 .....Christmas vacation begins.

1912.

Jan. 3 .....Classes resumed.
Jan. 29-30 .....Final examinations of First Semester.
Jan. 31 .....Registration for Second Semester.
Feb. 1 .....Classes resumed.
Feb. 22 .....Washington's Birthday. (Holiday.)
April 3 .....Easter vacation begins.
April 9 .....Classes resumed.
May 30 .....Memorial Day. (Holiday.)
May 31-June 1.....Final examinations of Second Semester.
June 2-17 .....Field work in Surveying.
June 21 .....Commencement.

ANNOUNCEMENT.

Professor J. D. Newton, A. M., M. E. (Cornell, '95), of the University of Kansas, has been chosen Dean.

In opening its school of engineering and preparing its courses of study, Loyola University has been able to profit by the experience of other institutions. The system which Loyola will follow has met with success in Cincinnati, Pittsburg, Milwaukee, etc.; although in each of these cities the schools have varied their methods so as to utilize to the fullest extent the local advantages.

The student will devote his entire time during nine months to theoretical work, which will, however, include field and laboratory exercises. He will spend the remaining three months of the year as an employe in some shop, or with some surveying or construction party, where he will be able to observe the application of the theories mastered in the class-room. Leading practicing engineers of the country have come to recognize the fact that more can be gained in a real shop than in one conducted by a university. This combination of school and factory, of theory and practice, has given the most satisfactory results. No institution, even with the most ample resources, can hope to equip and operate a shop that will take the place of a manufacturing plant conducted on business principles.

The dean of the department of engineering and his several assistants will devote their entire time to teaching and supervising the work of the students. In addition to the regular staff there will be a number of lecturers chosen from the various manufacturing and engineering firms of the city. This association of practical and theoretical men in the class and lecture room, the interchange of experience and the discussion of real difficulties, the stimulus given to study by the frequent intercourse with those in actua'

business—all this will tend to give Loyola an exceptionally strong faculty, and one that is calculated to secure the very best results.

The following is a brief outline of the method and its advantages:

1. The student will see the actual application in practice of the theories taught in class.

2. At the end of his course he will be conversant with methods which other graduates will have to spend a year or two in acquiring.

3. He will be in constant communication with his professor to consult about difficulties met in practical work.

4. During the summer months he will be an employe of the firm for which he works, and will be responsible to that firm.

5. This apprenticeship will be a test of the young man's character, his earnestness, his ability to hold a position and give satisfaction.

6. If he has proved a success the firm for which he has worked will be only too ready to give him permanent employment.

7. During his course he can earn sufficient to cover a large part of his expenses.

It will be seen from the above announcement that Loyola is offering courses in which all the advantages of a great center of industry and manufacturing can be utilized. It is believed that a young man going forth from this school will be able at once to step into a responsible position. He will get, while at school, that experience which others will have to acquire while struggling during their first years of actual work. No doubt experience will add to his proficiency; but he will leave the school as fully equipped as can be expected of one who is facing the real problems of life as an engineer.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the College of Engineering must be at least sixteen years of age, must present satisfactory testimonial of good moral character, and must be qualified in fifteen units of entrance subjects as enumerated below.

NOTE.—A unit represents the equivalent of five prepared recitations a week for one scholastic year in a single subject.

The prescribed units are:

English	3 units.
History	1 unit.
Elementary Algebra	1 unit.
Advanced Algebra	½ unit.
Plane Geometry	1 unit.
Solid Geometry	½ unit.
Elementary Physics	1 unit.
Total	8 units.

Electives sufficient to make up the required fifteen units may be offered from the following list:

Latin	2 to 4 units.
Greek	1 to 3 units.
German	2 to 3 units.
French	2 to 3 units.
English	1 to 2 units.
History	1 to 2 units.
Higher Algebra	½ unit.
Plane Trigonometry	½ unit.
Elementary Chemistry	1 unit.
Biological Science	1 to 2 units.
Manual Training	2 units.

Admission may be secured in one of the following ways:

1. BY EXAMINATION.—Entrance examinations will be held at the university in June and September. See Calendar.

2. BY CERTIFICATE.—Graduates from standard high schools or other approved preparatory schools will be admitted on presentation of official certificates exhibiting the number of units to which the applicant is entitled in each subject of the preparatory course pursued.

3. From Other Colleges.—Students from other institutions, whose entrance requirements and courses are substantially equivalent to those of Loyola University, will, upon presenting proper certificates of good standing and honorable dismissal, be admitted to advanced standing without examination and be given credit for the work done in such institutions.

4. As Special Students.—Persons over 19 years of age, not candidates for degrees, will be admitted as special students, provided they give evidence of preparation for the subjects desired. Such students may become candidates for degrees by passing the examinations prescribed for entrance.

FEES AND EXPENSES.

Matriculation fee	$ 5.00
Tuition	100.00
Diploma fee	10.00
Engineering laboratories, per credit, per semester	2.50
Physical and chemical laboratories, per credit, per semester	2.50
Breakage deposit, (Chemistry)	10.00
Surveying, field work, per semester	3.00
Summer course in surveying, 2 weeks	12.50
Summer course in surveying, 4 weeks	25.00

The matriculation fee is paid only once. The tuition fee is payable in two installments; $50.00 on October 1st and $50.00 on February 1st; ten days of grace are allowed. At the end of that time non-payment debars from classes.

No rebate is allowed on tuition paid, but when a student is forced, for valid reasons, to withdraw from college, the balance of the tuition representing that part of the semester for which he is absent may be redeemed in any other department studies within one year from date of withdrawal from the college.

Any balance remaining at the end of each year from the deposit required to defray the expense of breakage in the chemical laboratories, will be refunded or credited for the succeeding year at the option of the student.

The college provides no dormitory system for students. Board and rooms may be obtained in the vicinity of the college at from $4.00 to $5.00 per week.

Further information may be obtained from the Registrar, or the Dean of the College of Engineering.

THE COURSES OF STUDY.

The outlines of the courses which follow, and the formulation of their requirements, rest on the well founded theory that successful endeavor in any field of engineering activity depends primarily on thorough theoretical and practical training in the fundamental sciences on which modern engineering practice is based. To give such training as may lead to future usefulness on the part of its students, and to develop in them the power to attack and solve new engineering and scientific problems, is the purpose of the instruction offered in the College of Engineering. The work, therefore, in all the courses outlined, is mostly prescribed, and, because of the correlation and interdependence of the professions for which training is provided, a large proportion of the studies—modified in form and extent to meet the general requirements of the individual courses—are taken in common by all students.

Contemporary engineering practice has assumed many phases of specialization within the rather comprehensive fields of civil, mechanical, electrical, and chemical engineering in the general acceptation of the terms. No one may hope to become expert in more than a very few of the various lines classified under one or another of these broad divisions. Though specialized practice is the order of the day, it is very generally recognized that extreme latitude in the election of special technical studies, in connection with the courses offered, is not conducive to sound engineering education, and tends to defeat the real purpose of engineering training. There are therefore included as elective only a comparatively small number of such special technical subjects as are admittedly valuable in affording desirable general scientific training and promoting immediate average efficiency along broad lines of professional activity.

Considerable importance is attached to English, German, French, Logic, and Economics, which are included as

prescribed studies and designed to accord with the other work of the courses. The requirement in English will not be considered satisfied by the completion of the work of the first year. Instruction will be resumed and continued for as long a period as may seem necessary in the case of any student who shows subsequent inability to express himself clearly, accurately, and effectively.

Frequent visits of inspection, according to prearranged schedule under the guidance of instructors, will be made to convenient manufacturing and industrial establishments, power plants, public works, the sites of important pieces of construction, and other points affording opportunities for stimulating the student's interest and increasing his knowledge. Such visits, besides familiarizing him in a general way with the significance of productive and constructive enginering and lending themselves to his acquirement of exact habits of observation, will afford a basis for written work in which rhetorical and technical instruction may be advantageously combined.

In line with the foregoing, the work in all the courses is identical during the first year, and there is little divergence during the second year. The student is thus afforded an opportunity for self-adjustment, and the danger of premature choice of profession, which is a factor to be reckoned with, is decreased; but he will have become habituated to the scientific methods of thought and procedure so important in the prosecution of his further studies. In the third year the differentiation between the courses is more specific, and in connection with the comparatively advanced and more highly specialized work of the fourth year there is permitted the election of one of a number of groups of studies bearing on some specialty closely related to the course hitherto pursued. All such elections presuppose thorough qualifying preparation, and are subject to the approval of the Dean. The major emphasis, however, is laid on the prescribed studies in all the courses, not only as contributory and essential to professional success, but as desirable elements in culture and in life.

OUTLINES OF COURSES.

FRESHMEN YEAR—COMMON TO ALL COURSES.

	First Semester.	Second Semester.
English	3	3
German or French	4	4
Chemistry	3	3
Drawing and Descriptive Geometry	3	3
Advanced Algebra	5	0
Trigonometry	3	0
Analytic Geometry	0	5
Elementary Surveying	0	3
	21	21

Surveying ..... 2 weeks.
Shop work ..... 10 weeks.

CIVIL ENGINEERING

SOPHOMORE YEAR

Physics	5	5
Calculus	5	3
Differential Equations	0	2
Analytical Chemistry	3	0
Drawing	3	2
Geology	3	0
Logic	2	0
Advanced Surveying	0	4
Technical Mechanics	0	5
	21	21

Topographic Surveying ..... 4 weeks.
Shop or field work..... 8 weeks.

JUNIOR YEAR

Mechanics of Materials	5	0
Hydraulics	0	5
Materials Laboratory	2	2
Hydraulic Laboratory	0	1
Descriptive Astronomy	3	0
Geodesy	0	3
Roofs and Bridges	5	4
Railway Engineering	4	4
Roads and Pavements	2	0
Economics	0	2
	21	21

Railway Surveying (optional)..... 4 weeks.
Shop, field or office work..... 8 or 12 weeks.

SENIOR YEAR

	First Semester.	Second Semester.
Bridge Design	3	0
Water Supply	3	0
Sewerage	3	0
Heat-Power Machinery	3	0
Electrical Machinery	0	3
Mechanical and Electrical Laboratory	1	1
Reinforced Concrete	0	5
Masonry and Foundations	0	2
Engineering Problems	0	2
Economics	3	0
Contracts and Specifications	0	3
Elective	5	5
	21	21

MECHANICAL AND ELECTRICAL ENGINEERING.

SOPHOMORE YEAR.

Physics	5	5
Calculus	5	3
Differential Equations	0	2
Analytical Chemistry	3	0
Machine Drawing	3	0
Geology	3	0
Logic	2	0
Kinematics	0	6
Technical Mechanics	0	5
	21	21

Shop work ..... 12 weeks.

JUNIOR YEAR.

Mechanics of Materials	5	0
Hydraulics	0	5
Materials Laboratory	2	2
Hydraulic Laboratory	0	1
Physical Laboratory	2	2
Heat-Power Engineering	3	3
Mechanical Laboratory	1	1
Electrical Machinery	3	3
Machine Design	5	3
Economics	0	2
	21	21

Shop work ..... 12 weeks.

SENIOR YEAR. (MECHANICAL).

	First Semester.	Second Semester.
Power Plant Design	3	3
Steam Machinery Design	3	0
Gas Machinery Design	0	3
Designing and Drawing	3	3
Mechanical Laboratory	3	3
Electrical Laboratory	3	0
Economics	3	0
Contracts and Specifications	0	3
Elective	3	6
	21	21

SENIOR YEAR. (ELECTRICAL).

Power Plant Design	3	3
Electrical Engineering	6	6
Mechanical Laboratory	3	0
Electrical Laboratory	3	3
Economics	3	0
Contracts and Specifications	0	3
Elective	3	6
	21	21

CHEMICAL ENGINEERING.

SOPHOMORE YEAR.

Physics	5	5
Calculus	5	3
Differential Equations	0	2
Qualitative and Quantitative Chemistry	3	3
Drawing	3	0
Geology	3	0
Logic	2	0
Kinematics	0	3
Technical Mechanics	0	5
	21	21
Shop work	12 weeks.	

JUNIOR YEAR.

Mechanics of Materials	3	0
Hydraulics	0	3
Materials Laboratory	2	1
Hydraulic Laboratory	0	1
Physical Laboratory	2	2
Quantitative Analysis	5	0
Organic Chemistry	5	5

JUNIOR YEAR—Continued

Heat-Power Engineering	3	3
Mechanical Laboratory	1	1
Gas and Oil Analysis	0	3
Economics	0	2
	21	21

Shop or Laboratory work.....12 weeks.

SENIOR YEAR.

Industrial Chemistry	5	5
Physical Chemistry	2	2
Electro-Chemistry	2	2
Electrical Machinery	3	3
Economics	3	0
Contracts and Specifications	0	3
Elective	6	6
	21	21

DESCRIPTION OF COURSES.

ENGLISH.

The object of the instruction is to enable the student to express himself clearly, concisely, accurately, and vigorously, special stress being laid on those parts of rhetoric which will be of greatest value to engineering students. The written exercises are designed to accord with the other work of the courses. Students are instructed in the use of the library collections.

1. A course in rhetorical theory and practice, with essays based on the lives of distinguished scientists and visits of inspection.

Freshman; 1st semester; 3 credits.

2. A continuation of course 1, with essays based on assigned technical readings and visits of inspection.

Freshman; 2nd semester; 3 credits.

3. A conditional course supplementing the work of 1 and 2, and consisting wholly of theme work and consultation.

Required only of students who show inability to write clear and correct English. It will be continued until a satisfactory degree of proficiency is attained.

FRENCH AND GERMAN.

All students are required to take one year of work in either French or German. Elementary and advanced courses will be offered in each and the student may elect either. For outlines and descriptions of these courses see Bulletin of the College of Arts and Sciences.

MATHEMATICS.

1. Advanced Algebra.—A brief review of the foundations with graphic representation and of the theory and use of logarithms, followed by a treatment of permutations and combinations, theory of limits, series, undetermined coefficients, determinants, theory of equations, complex numbers.

Freshman; 1st semester; 5 credits.

2. Trigonometry.—The trigonometric functions and their relations; proofs of the principal formulas of plane trigonometry; proofs

of formulas and solution of all cases of right and oblique plane triangles; computation of areas.

Proofs of principal formulas of spherical trigonometry; formulas and solutions for right and oblique spherical triangles.

Freshman; 1st semester; 3 credits.

Numerous dependent problems and applications.

3. Analytic Geometry.—Graphic representation; the straight line; conic sections; higher plane curves; the essentials of Solid Analytic Geometry. Considerable problem work is required.

Freshman; 2nd semester; 5 credits.

4. Differential and Integral Calculus.—The direct and inverse operations are carried on in parallel. The fundamental formulas and methods of differentiating and integrating are followed by a geometric treatment of maxima and minima; applications to curves, surfaces, and volumes are considered. Taylor's Theorem and the subject of series in general will be treated in the second semester, together with the applications of the calculus to the enginering sciences. Some attention will be given to the subjects of Hyperbolic and Elliptic functions. Considerable problem work is exacted.

Sophomore; 1st semester, 5 credits; 2nd semester, 3 credits.

5. Differential Equations.—The purpose of the course, which is supplementary to course 4, is to familiarize the student with the types of equations ordinarily encountered in the study of the engineering sciences, and to indicate the principles and methods employed in their solution. The solution of numerous problems will be made a leading feature of this course.

Sophomore; 2nd semester, on completion of course 4; 2 credits.

ASTRONOMY.

1. Descriptive Astronomy.—A study of the fundamental facts and principles of the subject, with observatory practice.

Junior; 1st semester; 3 credits.

GEOLOGY.

1. General Geology.—A presentation of the general principles of geology and their practical applications. The course will be arranged with special reference to the needs of engineering students. Occasional excursions will replace laboratory practice. Three lectures and one laboratory period per week.

Sophomore; 1st semester; 3 credits.

ECONOMICS.

1. Elements of Economics.—A general survey of economic theory and a discussion of present-day economic problems including wages, rent, interest, currency, banking, taxation, tariff, trusts, trades-unionism, socialism. Lectures and classroom discussions.

Junior; 2nd semester; 2 credits.

2. Organization and Management.—A study of American industries and a discussion of the methods of organizing, financing, and managing modern commercial institutions. The purpose of the course is to acquaint the student with the application of the general principles of economics to business life. Lectures, discussions, and field work.

Senior; 1st semester; 3 credits.

PHILOSOPHY.

1. Logic.—
Sophomore; 1st semester; 2 credits.
2.
Senior elective; 1st semester; 2 credits.
3.
Senior elective; 2nd semester; 2 credits.

See Bulletin of the College of Arts and Sciences.

PHYSICS.

1. General Physics.—A general course in the subjects of Mechanics and Heat; Light and Sound; Electricity and Magnetism. The methods of the calculus are employed to a considerable degree. Two lecture-demonstrations, two recitations, and two laboratory periods per week.

Sophomore; throughout the year; 5 credits per semester.

2. Physical Measurements.—A laboratory course, supplemented by twelve lectures on the theory and methods of precise thermal and electrical measurements, involving quantitative work in the use of various instruments of precision, and the determination of physical constants. A report of specified form is required on each experiment.

Junior; throughout the year; 2 credits per semester.

3. Practical Photography.—The principles and processes of dry plate photography, including lectures on photographic optics and laboratory work in the exposure and development of dry plates; printing processes, copying, enlarging, and the making of lantern slides.

Elective; second semester; 2 credits.

DRAWING AND DESCRIPTIVE GEOMETRY.

NOTE.—The freshman work in drawing and descriptive geometry is given as a combined course, but, in the cases of special students or of those admitted to advanced standing, separate courses may be given as follows:

1. ELEMENTS OF DRAWING.—Freehand lettering; sketching and dimensioning; geometrical constructions; orthographic projection and isometric drawing; working drawings, including conventions, standards, etc.; tracing and reproductive processes. Notes and lectures on drafting room methods.

Freshman; 1st semester; 3 credits.

2. DESCRIPTIVE GEOMETRY.—The descriptive geometry of points, lines, planes, surfaces, and solids. Tangencies, intersections, and developments. Shades and shadows and the principles of linear perspective. One lecture or recitation and two drafting periods a week.

Freshman; 2nd semester; 3 credits.

MECHANICS AND HYDRAULICS.

1. TECHNICAL MECHANICS.—The principles of Statics, Kinematics, and Kinetics, with technical applications. Analytic and graphic methods are used concurrently in the solution of problems.

Sophomore; 2nd semester; 5 credits.

2. MECHANICS OF MATERIALS.—A study of the more important materials of construction, their manufacture, properties, and structural uses, and the theory of resistance to stress and deformation with applications to engineering design. Lectures and recitations.

Junior; 1st semester; 5 credits.

2a. MECHANICS OF MATERIALS.—A briefer course than 2; arranged to meet the requirements in Chemical Engineering.

Junior; 1st semester; 3 credits.

3. ADVANCED MECHANICS.—An advanced course supplementary to 2, and devoted to the treatment of such special topics as dynamical stability, the mathematical theory of elasticity, internal work and its derivatives, the theorem of least work, linear arches and curved beams. Lectures, problems, and applications.

Senior elective; 1st semester; 3 credits.

4. MATERIALS LABORATORY.—The laboratory practice will be adapted to the requirements of the individual courses and will include

the various standard tests of the more important materials of construction. The work will be supplemented by lectures on the technique of testing, collateral reading, and reports carefully prepared according to a prescribed form.

Junior; throughout the year; 2 credits per semester.

4a. Materials Laboratory.—An advanced laboratory course, in continuation of the work of 4, devoted to testing and special investigations of materials of construction. Hours and nature of experimental work to be assigned in conference with the instructors concerned.

Senior elective; 1 to 3 credits per semester.

5. Hydraulics.—The theory of fluid pressure and equilibrium; the flow of water through orifices, weirs, tubes, pipes and channels, the theory of hydraulic measurements; hydraulic motors and machinery; naval hydromechanics. Lectures and recitations.

Junior; 2nd semester; 5 credits.

5a. A briefer course than 5, adapted to meet the requirement in Chemical Engineering.

Junior; 2nd semester; 3 credits.

6. Hydraulic Laboratory.—An experimental course to accompany 5, including logarithmic plotting, experiments with weirs, orifices, pipes, meters and nozzles; the testing of hydraulic machinery.

Junior; 2nd semester; 1 credit.

6a. Hydraulic Laboratory.—An advanced course in experimental hydraulics, including capacity and efficiency tests of hydraulic machinery. The hours of work will be by appointment, and some latitude will be allowed as to the nature of the experimentation.

Senior elective; either semester; 1 to 3 credits.

CIVIL ENGINEERING.

1. Elementary Surveying.—Lectures, recitations, field and office work covering the principles, uses, and adjustments of the engineer's level and transit, and the uses of the steel tape; topographic surveying with transit and stadia.

Freshman; 2nd semester; 3 credits.

2. Advanced Surveying.—The application of the fundamental operations to city, land, mine, and hydrographic surveying; the use of the plane table and sextant; precise leveling and triangulation, including the measurement of base lines and angles; the determination

of azimuth by solar observation. Lectures, recitations, field, and office work.

Sophomore; 2nd semester; 4 credits.

3. Geodesy.—The principles of practical astronomy and their application in the determination of latitude, longitude, time, and azimuth with the engineer's transit and sextant. Methods of conducting geodetic surveys, and the application of the method of least squares to the adjustment of observations. The figure of the earth.

Junior; 2nd semester; 3 credits.

4. Summer Surveying.—The summer courses in surveying are given at the close of the school year in June and are of a practical nature. The student will spend ten hours a day in the field or office in the performance of the various duties incident to the work of the surveyor. The courses in Elementary and Topographic Surveying are prescribed. The course in Railway Surveying and Location is optional. The periods allotted to these courses are two weeks for Elementary Surveying, and four weeks each for Topographic and Railway Surveying.

5. Topographic Drawing.—The conventional methods of representing topography and the platting of the results of surveys.

Sophomore; 2nd semester; 2 credits.

6. Construction Drawing.—Stereotomy, dams, piers, arches, trestles, culverts, etc. Applications of Descriptive Geometry to engineering construction.

Sophomore; 1st semester; 3 credits.

7. Railway Engineering.—Lectures, recitations, field, and office work dealing with the subjects of railway location and construction. The theory of simple, compound, and transition curves, cross-overs, frogs and switches, turnouts, etc. Cross sectioning, the computation of cut, fill, and haul; road bed construction, including ballast, track, culverts, trestles, etc. Estimates and costs.

The economics of location, embracing a treatment of such topics as train resistance, the influence of grade, curvature, rise and fall; rolling stock and motive power; yards, stations, and terminals; street railways.

Junior; throughout the year; 4 credits per semester.

8. Railway Engineering.—A continuation of course 7, including a discussion of the economics of construction, a study of organization and management, maintenance of way, etc.

Senior elective; throughout the year; 2 credits per semester.

9. Railway Designs.—A conference and drawing room course in the proportioning of culverts and waterways, and the design of track layouts, yards, terminals, bridge masonry, and other railway structures.

Senior elective; 2nd semester; 3 credits.

10. Roads and Pavements.—The location, construction, and maintenance of roads, and the construction and maintenance of city streets and pavements, combined with a study of the materials used. Lectures, recitations, and collateral reading; visits of inspection and reports.

Junior; 1st semester; 2 credits.

11. Roofs and Bridges.—The analytic and graphic investigation of stresses in framed structures under various conditions of loading. Structural details. The design of a metal roof truss and of a plate girder, including general and detail drawings, bills of material, weights, and costs.

Junior; throughout the year; 1st semester, 5 credits; 2nd semester, 4 credits.

12. Bridge Design.—A continuation of course 11, involving the drafting room application of its principles to the design of simple riveted and pin-connected truss spans, following the practice of leading bridge companies.

Senior; 1st semester; 3 credits.

13. Higher Structures.—A study of continuous, cantilever, suspension, and arch bridges; statically indeterminate structures. Lectures, computations, and drafting room work.

Senior elective; throughout the year; 3 credits per semester.

14. Steel Buildings.—The principles of construction of mill and high steel-skeleton buildings; computation of stresses and design.

Senior elective; either semester; 2 credits.

15. Reinforced Concrete.—The theory and design of beams, slabs, columns, retaining walls, dams, and other structures, and a critical study of the design and structural features of reinforced concrete arch types. The course is concluded by the complete design, including drawings, of a reinforced concrete arch.

Seniors; 2nd semester; 5 credits.

16. Masonry and Foundations.—The course is given by lectures, recitation, collateral reading, and visits of inspection. Among the subjects treated are the materials of masonry; the construction of

bridge piers, abutments, dams, retaining walls, etc.; ordinary, pile, and subaqueous foundations.

Senior; 2nd semester; 2 credits.

17. Water Supply.—The collection, purification, and distribution of water supplies for domestic and other purposes.

Senior; 1st semester; 3 credits.

18. Sewerage.—The collection, treatment, and disposal of sewage. Lectures, recitations, and inspection trips.

Senior; 2nd semester; 3 credits.

19. Sanitary Engineering.—A continuation of 18 and 19, the work being devoted principally to problems and designing related to water supply, sewer systems, and sewage disposal plants.

Senior elective; 2nd semester; 5 credits.

20. Hydraulic Engineering.—The application of hydraulic theory and principles to the investigation and development of water power; irrigation, river and harbor improvement; drainage and canalization. The design of hydraulic works, plants, and appliances.

Senior elective; throughout the year; 3 credits per semester.

21. Engineering Problems.—The application of fundamental principles to the investigation and solution of practical problems.

Senior; 2nd semester; 2 credits.

22. Contracts and Specifications.—The elements of business law and a survey of the law of contracts as applied to engineering work. A study of general and special clauses used in the various kinds of engineering specifications. Practice in the preparation of contracts and specifications.

Senior; 2nd semester; 3 credits.

MECHANICAL ENGINEERING.

1. Machine Drawing.—A continuation of Drawings 1 and 2, and the application of their principles to machine drawing and empirical design. Sketching and detailing machine elements from model and copy; the making and use of standard data sheets; detail and assembly drawings of complete machines. The work is designed to familiarize the student with commercial drafting room practice, and is of distinctly vocational character.

Sophomore; 1st semester; 3 credits.

2. Kinematics of Machinery.—Lectures and recitations on the theory of mechanisms, instant centers, cams, gears, linkages, velocity and acceleration diagrams, etc.

Sophomore; 2nd semester; 3 credits.

3. Kinematic Drawing.—The graphic application of the principles of course 2. A series of separate problems of graded complexity will be assigned to each student.

Sophomore; 2nd semester; 3 credits.

3a. Kinematics.—A combined lecture, recitation, and drafting room course briefer than 2 and 3, and arranged to satisfy the requirement in the principles of mechanism for chemical engineering students.

Sophomore; 2nd semester; 3 credits.

4. Lectures, recitations, and drafting room exercises covering the application of the principles of Drawing, Kinematics, and Mechanics to the proportioning of machine elements and the design of complete machines.

Junior; throughout the year; 1st semester, 5 credits; 2nd semester, 3 credits.

5. Heat-Power Engineering.—Lectures and recitations on the thermodynamics of gases and vapors as applied to heat engines; a study of fuels and the principles of combustion; boilers, engines, and auxiliaries. The indicator diagram. A detailed analysis of efficiencies and economies of various types of steam engines, gas engines, and turbines; valves and valve gears.

Junior; throughout the year; 3 credits per semester.

5a. Heat-Power Machinery.—A lecture and recitation course for civil engineering students, designed to impart a general knowledge of the structural features and operating characteristics of boilers and producers, steam and gas engines and auxiliaries, pumping, hoisting, traction, and other machinery. The course is devoid of much technical detail.

Senior; 1st semester; 3 credits.

6. Mechanical Laboratory.—Introductory experimental work in the testing and calibration of gauges, indicators, integrating instruments, etc.; power measurements; fuel and gas analysis; oil testing; the determination of engine efficiencies and the testing of auxiliary apparatus.

Junior; throughout the year; 1 credit per semester.

6a. Mechanical Laboratory.—A continuation of course 6, the work including the testing and determination of efficiencies of steam

engines, boilers, gas and oil engines, pumps, air compressors, refrigerating machinery, etc.

Senior; throughout the year; 3 credits per semester.

6b. Mechanical Laboratory.—An advanced experimental course open only to students who have completed the prescribed laboratory courses. Hours and nature of the work to be arranged.

Elective; either semester; 1 to 3 credits.

Note.—The work in experimental engineering is varied according to the courses. Each experiment will be followed by a carefully prepared report of specified form.

7. Power Plant Design.—A continuation of course 5. Lectures, recitations, and computations dealing with the types and principles of boilers, multiple expansion engines, and their auxiliaries and dependencies; gas engines; steam turbines, refrigerating machinery, and air compressors. The selection of elements and their combination in power plants.

Senior; throughout the year; 3 credits per semester.

8. Steam Machinery Design.—A study of types and proportions of steam engines; the indicator card; entropy—temperature and crank effort diagrams; the design of such details as valve gears, governors, and fly-wheels; the balancing of engines.

Senior; 1st semester; 3 credits.

9. Gas Machinery Design.—A study of modern gas engines and producers, and the designing of important details of internal combustion engines.

Senior; 2nd semester; 3 credits.

10. Designing and Drawing.—A drafting room course paralleling the work of 8 and 9. This course must be accompanied, or preceded by 8 and 9.

Senior; throughout the year; 3 credits per semester.

12. Steam Turbines.—A general discussion of the types, principles, and economic and structural features of steam turbines; steam turbine calculations.

Senior elective; 2nd semester; 3 credits.

11. Steam Boilers.—A study of steam boiler types, fuels, and furnaces; steam boiler computations, and the design of boiler details and accessories.

Senior elective; 1st semester; 3 credits.

13. Compressed Air.—A study of the properties of air, the principles of air compressors, and the applications of compressed air.

Elective; 2nd semester; 2 credits.

14. Heating and Ventilation.—The fundamental principles of the subject, and their application to the design, construction, and installation of heating and ventilating systems.

Senior elective; 2nd semester; 2 credits.

15. Mechanical Refrigeration.—A study of the principles and methods involved in the artificial production of low temperatures, and a survey of the design, construction, and operation of refrigerating machinery and refrigerating systems.

Senior elective; 2nd semester; 2 credits.

ELECTRICAL ENGINEERING.

1. Electrical Machinery.—Lectures, recitations, and laboratory work dealing with the history of the subject, and the laws and properties of electric and magnetic circuits; electrical measurements; the theory construction and operation of direct and alternating current machinery.

Junior; throughout the year; 3 credits per semester.

1a. Electrical Machinery.—A briefer course than 1, arranged to meet the needs of civil engineering students.

Senior; 2nd semester; 3 credits.

2. Electrical Engineering.—Lectures, recitations, and computations on the theory and characteristics of electrical machinery, dealing in detail with the laws and properties of electric and magnetic circuits; direct and alternating current phenomena; transmission lines; generators, motors, transformers, converters, etc.

Senior; throughout the year; 6 credits per semester.

3. Electrical Laboratory.—Practice in the electrical laboratories will be continuous throughout the junior and senior years. The work will be of such nature as to meet the requirements of the individual courses. Opportunities for laboratory work of an advanced character will be afforded to those who have completed the prescribed courses. The regular work will include the testing of instruments, generators, motors, transformers, converters, storage batteries, etc.; it will be supplemented by occasional lectures. A carefully prepared report on each experiment is required.

Throughout the year; junior, 1 credit per semester; senior, 3 credits per semester.

4. Telephone Engineering.—The theory and operation of telephonic apparatus and the application of the principles of electrical engineering to the design, construction, and maintenance of transmission lines, and to the investigation of problems in telephone engineering.

Senior elective; 1st semester; 3 credits.

5. Electric Railways.—The application of the principles of electrical engineering to the construction, operation, and equipment of various types of electric railway systems. The dynamics of train movement, and the plotting of speed-time curves, railway load curves, etc.; location and financing; cost of construction and operation.

Senior elective; 2nd semester; 3 credits.

6. Transmission and Distribution of Electric Energy.—A discussion of typical systems of power generation, transmission, and distribution for lighting, traction, and industrial purposes, and their design, construction, operation, and maintenance with some reference to costs and rates.

Senior elective; 2nd semester; 3 credits.

7. Design of Electrical Machinery.—The applications of fundamental principles and of considerations of commercial practice to the design of various classes of direct and alternating current machinery.

Senior elective; 2nd semester; 3 credits.

8. Illumination and Photometry.—The theory of illumination and a discussion of illuminating apparatus and devices; the design, construction, and operation of electric lighting systems and the photometry of lamps.

Senior elective; 2nd semester; 3 credits.

CHEMISTRY AND CHEMICAL ENGINEERING.

1. General Chemistry.—Entrance Chemistry, if offered, will not be accepted as the equivalent of this course.

Two lecture-demonstrations, one recitation, and one laboratory period, covering the fundamental principles of the science, the chemistry of the non-metals and metals, and the elements of qualitative chemical analysis.

Freshman; throughout the year; 3 credits.

2. Qualitative Analysis.—The laboratory work will be varied to some extent according to the course pursued and will include analy-

ses of alloys, rocks, minerals, slags, mattes, and other compounds or mixtures. One lecture or recitation and three laboratory periods per week.

Sophomore; 2nd semester; 3 credits.

3. Quantitative Analysis.—An introductory course consisting of one lecture and three laboratory periods per week devoted to volumetric and gravimetric determinations, including practice in the calibration of flasks and burettes, acidimetry and alkalimetry, chlorimetry, and the analysis of simple compounds and ores.

Sophomore; 2nd semester; 3 credits.

4. Quantitative Analysis.—A continuation of course 3, and of a more advanced nature. Instruction will be given gravimetric, volumetric, and electrolytic methods of analysis. The work will include the analysis of iron and steel, slags, silicates, paints, lubricants, ores, etc. One lecture, laboratory conferences, and the equivalent of five laboratory periods weekly.

Junior; 1st semester; 5 credits.

5. Gas and Oil Analysis.—A laboratory course with weekly conferences, devoted to practice in the calorimetry and typical methods of analysis of gases and oils.

Junior; 2nd semester; 3 credits.

6. Water Analysis.—Lectures and laboratory practice in the examination of water with reference to its use for domestic and industrial purposes.

Elective; 1st semester; 3 credits.

7. Organic Chemistry.—Two lectures and one recitation on the general principles and theories of organic chemistry and the methods of preparation and characteristic reactions of organic compounds with a corresponding laboratory course of three periods per week. A limited amount of work along special lines of organic chemistry may be elected.

Junior; throughout the year; 5 credits.

8. Advanced Organic Chemistry.—A conference and laboratory course dealing with the preparation and reactions of special classes of organic compounds and including ultimate organic analysis. The work may be varied, in a limited degree, according to the option of the student.

Senior elective; throughout the year; 3 to 5 credits per semester.

9. Industrial Chemistry.—The course is given by means of lectures, recitations, laboratory practice, and visits of inspection, and deals

with the chemical processes, apparatus, and operations involved in various chemical industries, and with the analysis of raw materials and products. Attention is given, as far as may be, to estimates of apparatus and plants for particular purposes and to costs and management.

Senior; throughout the year; 5 credits per semester.

10. Physical Chemistry.—The course is arranged to embrace a systematic presentation, with experimental illustration, of the more important principles of theoretical chemistry, stress being laid on such points as the theory of solution. reaction velocity, catalysis, chemical equilibrium, and the applications of the principles of physical chemistry to industrial practice. The course is accompanied by laboratory work in the determination of molecular weights and physico-chemical measurements.

Senior; throughout the year; 2 credits per semester.

11. Electro-Chemistry.—Lectures, recitations, and laboratory work partly in continuation of course 11, dealing with the principles of the subject and their application to chemical industries. The laboratory practice includes electro-chemical measurements and the electrolysis of chemical compounds.

Senior; throughout the year; 2 credits per semester.

12. Microchemistry.—Lectures and laboratory work on the use of the microscope and its accessories, and the application of microscopic apparatus and methods to chemical investigation and analysis.

Senior elective; 2nd semester; 3 credits.

13. Assaying.—Lectures and laboratory work in the crushing, sampling, and assaying of gold, silver, copper, lead, and zinc ores, and the sampling and assaying of bullion.

Elective; 1st semester; 3 credits.

14. Metallurgy of Iron and Steel.—A discussion of the properties and principles of production and manufacture of iron and steel, with laboratory practice in special analytical methods applicable to iron and steel determinations. The work is supplemented by visits of inspection and reports.

Senior; 1st semester; 2 or 3 credits.

15. General Metallurgy.—A course treating of metallurgical processes and the principles of combustion and thermochemistry, pyrometry, fuels, fluxes, refractories, furnaces and artificial draft and blast.

Senior elective; 1st semester; 2 credits.

16. Metallurgical Problems.—The solution of a number of selected problems relating to the principles utilized in practical metallurgy.

Senior elective; 1st semester; 1 to 2 credits.

17. Metallurgy of Non-ferrous Metals.—A course of lectures dealing in considerable detail with the metallurgy of copper, lead, silver, gold, zinc, and aluminum, and more briefly with nickel, cobalt, arsenic, antimony, tin, mercury, bismuth, etc. The physical and chemical properties of ores and the various processes employed and principles involved in reduction and refinement are discussed.

Senior elective; 2nd semester; 3 credits.

18. Metallurgical Laboratory.—The laboratory practice is closely related to the class room exercises. It includes special analytical methods applicable to iron and steel, fuel, fluxes, and slags. Practice in pyrometry and the measurement of blast velocity, and the analysis of flue gas by special apparatus. Roasting, smelting, leaching, and amalgamating processes as applied to the reduction of the ores of gold, silver, copper and lead.

Senior; 2nd semester; 3 to 5 credits.

19. Chemical Engineering.—A study of the types of apparatus and operations involved in chemical manufacture, the design of chemical plants, and the consideration of the chemical resistance of materials suitable for their own construction.

Senior elective; 2nd semester; 3 to 5 credits.

EXAMINATIONS.

Examinations are held semi-annually at the end of each semester. The work done during the semester, as well as the examinations, is considered in the grading of students. The results of the examinations are expressed on the basis of 100.

70 is required for passing; 60-70 indicates a condition; below 60 shows failure. Regularity of attendance at lectures and laboratory, and faithfulness in the performance of daily work are of as much weight in determining the standing of students in their classes as are the examinations.

Conditions.—Conditioned students must remove such conditions at the examinations given for that purpose during the following semester. Failing in this the student is obliged to repeat the subject during the next semester.

For a special examination of this kind a fee of $1.00 is charged.

DEGREES.

The degree of Bachelor of Science in Civil Engineering, Mechanical Engineering, Electrical Engineering, and Chemical Engineering will be conferred on students who satisfactorily complete the corresponding courses.

Department of Pharmacy

COLLEGE CALENDAR.

1911.

Junior Lectures begin.....Tuesday, September 19
Junior Laboratories open.....Saturday, September 23
Senior Lectures begin.....Wednesday, September 20
Senior Laboratories open.....Monday, September 25
Ebert Memorial Day.....Monday, November 20
Thansgiving day, holiday.....Thursday, November 23
Junior Lectures close for holidays.....Saturday, December 16
Senior Lectures close for holidays.....Friday, December 15

1912.

Junior work resumed.....Tuesday, January 2
Senior work resumed.....Wednesday, January 3
Washington's birthday, holiday.....February 22
Lincoln's birthday, holiday.....February 12
Junior Laboratories close.....Saturday, May 19
Senior Laboratories close.....Friday, May 18
Junior Lectures close.....Thursday, May 17
Senior Lectures close.....Friday, May 18

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Adjunct Professor of Chemistry.

MAXIMILLIAN WOLDENBERG, Ph. D.....3344 Vernon Ave., Chicago
Adjunct Professor of Industrial Chemistry.

ARTHUR WAY WHEELER, Ph. G.....1440 Plaisance Ct., Chicago
Instructor in Botany and Plant Histology.

HUGH A. CAPERTON, LL. B.
Lecturer on Pharmaceutical Jurisprudence.

WILLIAM G. BAXTER.....Winnetka, Ill.
Lecturer on Commercial Pharmacy.

HISTORICAL.

Realizing that the city of Chicago has made wonderful strides as a center of education, commerce and art, and that in its continued phenomenal growth, especially as an educational center, there would be great need for increased pharmaceutical training of a high degree of proficiency, the Central States College of Pharmacy was founded and chartered in accordance with the laws of the State of Illinois.

In exploiting the course the college has been able to profit greatly by the experience of other institutions and each year since its inception it has been found necessary to enlarge the teaching facilities and faculty. The courses of study were planned on the broadest and most advanced lines; individual, laboratory and practical work being the foundation for the training of its students; this combined with absolute co-operation on the part of the Faculty has established for the college a place and reputation among the recognized institutions of the country.

As a further indication of the progressive program of the college, its sphere of influence has been greatly widened and its benefit to the community greatly enhanced by the action of the Board of Trustees, who in the spring of nineteen hundred and ten, after consulting with the faculty and alumni, entered into an affiliation with Loyola University, becoming its department of Pharmacy thereby enjoying the co-operation of the University authorities, thus enabling the school of Pharmacy to arrange its curriculum on even more liberal lines than heretofore and at the same time placing the students of this institution on an equal basis with the students of other departments of the University.

ANNOUNCEMENT.

The annual course of instruction will begin Tuesday morning, September 19th, at ten o'clock and will continue for a period of thirty-five weeks inclusive of all holidays, covering a period of more than 700 lecture and 800 laboratory hours. The completion of two full terms is required for graduation and the degree in pharmacy is conferred on those who have satisfactorily completed the work.

The course is systematic, scientific and practical, giving a training which enables the graduate to safely assume the re-

sponsibilities of the modern pharmacist; a training which is especially necessary in view of the various food and drug laws which have been enacted by the different states as well as the National Government.

With necessary equipment and original and progressive features in the method of teaching, a faculty of experience and a competent corps of assistants, it is believed the best possible opportunity is afforded by this college for the student to acquire the requisite knowledge for a pharmaceutical career.

REQUIREMENTS FOR ADMISSION.

Applicants for admission must be of good moral character and must show a preliminary training of one year high school or the equivalent thereof. Candidates lacking in preliminary work can receive competent instruction in the various preparatory schools throughout the city. For information, address the Registrar.

Special examinations will be held one week prior to opening of term for applicants who feel qualified to enter but are lacking in the necessary credentials.

JUNIOR YEAR.
OUTLINE OF THE COURSE.
SUBJECTS AND HOURS.

First Semester.

Subject	Hours per week
Pharmacy, Theoretical	2
Chemistry	2
Botany	3
Experimental Chemistry	4
Pharmaceutical Laboratory	3
Histology	2
Physiology	2
Pharmaceutical Arithmetic	1
Bookkeeping	1
Total hours per week	21

Second Semester.

Subject	Hours per week
Pharmacy, Theoretical	3
Chemistry	3
Botany	3
Qualitative Analysis	4
Pharmaceutical Laboratory	3
Dispensing	2
Histology	2
Materia Medica—last half	1
Pharmacognosy	1
Total hours per week	21

SENIOR YEAR.

OUTLINE OF THE COURSE.

SUBJECTS AND HOURS.

First Semester.

Subject	Hours per week
Theoretical Pharmacy	3
Theoretical Chemistry	3
Materia Medica	3
Quantitative Analysis	5
Pharmacy Laboratory	3
Dispensing	3
Pharmacognosy	1
Histology	2
Total hours per week	23

Second Semester.

Subject	Hours per week
Theoretical Pharmacy	3
Theoretical Chemistry	3
Materia Medica	2
Posology-Toxicology	1
Pharmaceutical Assaying	3
Quantitative Analysis	1
Qualitative Analysis	1
Pharmaceutical Laboratory	3
Dispensing	3
Pharmacognosy	1

Histology	2
Bacteriology	½
Prescription Writing	½
Jurisprudence	1
Commercial Pharmacy—Special	
Total hours per week	25

SUBJECTS AND METHODS.

PHARMACY.

G. L. Secord, Ph. D., M. S., Head of the Department.
Andrew D. Warde, Ph. B., Ph. D., Professor of Mathematics.

JUNIOR YEAR.

The junior year in Pharmacy will cover a period of thirty-five weeks and will include two lecture hours per week and one quiz hour. The work in the Operative Laboratory will begin with the opening of the term and will continue throughout the year while the work in dispensing will occupy two hours per week during the second semester.

The work is carried out in logical sequence and exemplified by practical demonstrations.

For convenience of study the subject will be considered under the following heads:

Elementary Pharmacy: Under this head will be considered in the beginning lectures, the origin, history and classification of Pharmacy, together with the Pharmacopœias, Specific Gravity and Metrology.

Pharmaceutical Arithmetic: The object of the work in this department will be to teach the student to use easily the various current weights and measures.

A review of decimal fractions, ratio and proportion will be given; also calculations of strengths of the various preparations, percentage, alligation, dilutions, solutions and the general work as applied to the needs of the present day Pharmacist.

Pharmaceutical Technique: This comprises the study of the various subjects and processes, theoretically and practically, as applied to the work in the laboratory; the operations are carried out in progressive order and are made practical to the student by the use of the proper apparatus, materials, and methods, and at the same time carefully demonstrating the care and use of the various utensils, apparatus and devices as employed in the work.

Inorganic Pharmacy: This group is studied by taking into consideration the official nomenclature, properties, manufacture, derivation, production and commercial supply of the various substances and in the laboratory the manufacture of one or more official compounds or preparations from each class.

Pharmaceutical Latin: In order that the student acquire a fundamental knowledge of prescription writing, it is deemed advisable to make a short study of the Latin language, including declensions, construction, case and the more common forms and Latin phrases generally employed.

The student will also receive instruction in the varous incompatibilities and minor prescription reading.

PHARMACEUTICAL LABORATORY.

The work in the laboratory will follow closely upon the lectures, thereby impressing more firmly the theoretical part of the course.

The beginning exercises will include the use of the various weights and measures together with the operations necessary for the determination of their accuracy.

Practical individual demonstration of Specific Gravity, Specific Volume, Solution, etc., will also be made with especial reference to the Pharmacopœial substances.

The various pharmacal processes will also be considered with especial bearing on the future work in the laboratory.

DISPENSING.

The exercises in this branch during the junior year will be for the purpose of impressing the more simple work in prescriptions with especial reference to dosage saturations, percentage solutions, dilutions, labeling and the more common incompatibilities. The student will receive also an abundance of experience in the correction of common errors in prescription work.

SENIOR—PHARMACY.

The senior year begins by taking into consideration the manufacture of Extractive preparations, commencing with the simplest forms such as infusions, decoctions and gradually advancing to the more elaborate preparations as the Tinctures, Fluid Extracts and Resins.

The various classes of preparations are presented in progressive order, and are exemplified by grouping according to their drug strength.

The preparations of the solids such as troches, pills, confections, cachets, tablets, capsules, ointments, cerates, suppositories and plasters, are next considered with respect to their consistence and therapeutic uses.

GALENICAL PREPARATIONS.

These preparations of the U. S. P. and N. F. are prepared according to classification and strength, the manufacturing of which follows closely upon the didactic work.

The student is successively drilled in dosage, synonyms, and common names, both in the Laboratory and Quizzes.

ORGANIC PHARMACY.

This branch includes the study of: Cellulose, Hydrocarbons, Carbohydrates, fixed and volatile oils, alcohols, Coal and Wood Tar products, and the compounds and modifications of each.

The Glucosides and Alkaloids are taken up with reference to their derivation and production. Serum Therapy is fully considered as regards the production, preparation and standardization.

Ferments and Animal products are next considered with reference to the derivation, preparation and uses.

PHARMACEUTICAL LABORATORY.

Here as in the junior year it is advisable that the Laboratory exercises follow closely upon the lectures.

The student is drilled in the manufacture of the various preparations of the U. S. P. and N. F., including: Tinctures, Fluid Extracts, Extracts, Soaps, Ointments, Poultices, Cerates and Suppositories.

DISPENSING.

Besides the regular work of compounding the extemporaneous preparations from the U. S. P. and National Formulary, the student will here receive especial attention in the compounding and reading of original physician's prescriptions including also the consideration of the various kinds of incompatibilities.

The administration of the various mixtures in various forms and modifications is next considered and following this the preparation of Pills, Cachets and Tablets.

For completion of the subjects the student is drilled in prescription writing, abbreviations and various methods of wrapping packages.

TEXT BOOK.

Text Book—Arny's Principles of Pharmacy.

Reference Works—Caspari's Pharmacy, United States Pharmacopœa, and National Formulary. Scoville's Art of Compounding. Remmington's Practice of Pharmacy.

CHEMISTRY.

R. H. PHILLIPS, B. S., Ph. G., Head of the Department.
B. E. SCHAAR, Ch. E. M. WOLDENBERG, Ph. D.

Instruction is given by lectures, Laboratory exercises and quizzes. The lectures are replete with numerous experiments and demonstrations, thus presenting the various topics of the subject in a practical as well as a theoretical manner.

The Laboratory work follows the didactic work and continues throughout the Junior and Senior years. The recitations are conducted by competent quiz masters and are intended to supplement the lectures as well as to test the student's knowledge of the subject as he progresses.

JUNIOR.

The Junior year embraces the study of the metallic and non-metallic elements and their compounds, the atomic theory, formulæ, chemical nomenclature and a general classification of inorganic compounds, and in the Laboratory analysis of 25 unknown substances.

SENIOR—CHEMISTRY.

The study of inorganic chemistry is here resumed and later on after a thorough introduction of the principles involved, quantitative analysis is taken up with the estimation of simple bodies such as acids, and bases, gradually advancing to the analysis gravimetrically and volumetrically of the more important inorganic and organic substances.

Organic chemistry begins with the consideration of the principles of organic compounds and continues into the more advanced subjects and considers organic analysis, molecular

weights, vapor densities, physiological chemistry, analysis of urine, saliva, gastric juice, alkaloids and sanitary chemistry.
Text Books—Simon's Manuel, Whitthous Chemistry. U. S. P.

MATERIA MEDICA.

ELMER H. FLINN, Ph. G., M. D., Head of the Department.
W. F. von ZELINSKI, M. D., Ph. G.

This course is taken up during the Senior year, and comprises a thorough consideration of the source of the various substances used for medicinal purposes, as well as the study of the characteristics of the plant, mineral, or animal yielding the drug.

The study of the action and uses of drugs will be outlined as far as possible on a therapeutic basis, that is, groups of drugs acting in like manner will be considered as a class. Under this subject will be considered Posology, Pharmacodynamics, Therapy Dynamics, and Toxicology.

Special lectures will also be given on Organic and Serumtherapy and so-called Medicinal foods and Enzymes. Especial attention will be given Official Drugs and National Formulary Preparations.

A brief consideration will be given those drugs which are not of official or of N. F. origin, but which are of proven value and well recognized.

PHARMACOGNOSY.

This course, extending throughout the Junior and Senior terms, is practical and comprehensive and owing to the importance of this subject, no effort is spared to thoroughly instruct each student in this branch. The work will consist of lectures, quizzes and laboratory exercises. In the study of the crude drug, the student will be required to make drawings and to write a description of the various vegetable drugs, their habitat, technical and common name and constituents.

Specimens will be furnished to facilitate study and every effort will be made to teach the student how to examine a drug in a systematic and intelligible manner. Examinations will be held from time to time as may be deemed necessary to note the student's progress.

BIOLOGY—PHYSIOLOGY AND ANATOMY.

This embraces a series of lectures, systematically arranged, followed by quizzes written and oral.

Under Biology will be considered:

Beginnings of life
Theories of Origin
Life's varying conditions
Fishes, Birds
Animals, Mammals and Reptiles, and a few special lectures on immunity.

The work in Physiology is aimed to give the student a comprehensive idea of the subject without going into the minute details.

The general plan of the lectures is as follows:

The plan of the human body
The respiratory system
The circulatory system
The senses and their functions
The digestive system
The nervous system
The locomotor system
A few special lectures will be given on Hygiene

Anatomy: Only the salient features of the subject are emphasized; the aim being to review the most important facts as applied to the needs of the pharmacist.

The anatomy of the various organs is considered, together with their Physiology and Histology.

The bones, joints and muscles are considered in such a manner as to render intelligible the meaning of the descriptive terms of the science. Charts, skeletons and dissected material will be used as required to elucidate the lectures.

BOTANY.

Walter F. von Zelinski, M. D., Ph. G., Head of the Department.
Arthur W. Wheeler, Ph. G.

The course in Botany, while a general one, is taught from the standpoint of its relation to the needs of the modern pharmacist, and extends throughout the Junior term.

The course consists of systematic lectures, recitations and demonstrations by means of drawings and specimens supplemented by modern projection apparatus. The instruction is so graded as to give a thorough knowledge of the fundamental principles of the science, especially as it pertains to the study of pharmacognosy and as a guide to the determination of plants.

Consideration is given to the Physiology and anatomy of plants as well as classification and the relation plants bear to each other.

Whenever possible the class is taken on visits to various parks, greenhouses and woods in and about the city.

Laboratory Course: To further enable the student to grasp those points essential to a proper understanding of the subject and for the practical instruction in the identification of plants and plant parts, actual specimens or models will be provided which the student will dissect, making drawings and noting important points, thus familiarizing himself with the distinguishing characteristics of the different species and plant organs.

Demonstrations and recitations are also conducted by the instructor and the work is graded at the end of each semester.

PLANT HISTOLOGY.

The importance of a knowledge of the minute structure of plants as a foundation for the thorough study of plant Physiology and Anatomy cannot be overestimated, and it is quite necessary for the student to acquire a mastery of this fundamental study. For this reason the work in this department will be mainly pursued in the laboratory and lectures, recitations and demonstrations, as may be required, will supplement the work.

The Laboratory of Histology is especially equipped with new and modern microscopes and needful accessories for proper instruction. Each student will be instructed in the methods of preparing plant tissues for examination, and will prepare, mount and stain a number of carefully selected sections. The students will also be required to make drawings of the various structures under the supervision of the instructor.

The course extends throughout the junior term and is preliminary to the advanced work of the senior year. Where the knowledge gained of the subject is applied to the identification of powdered drugs and in the detection of adulterations. During the second semester of the senior term the student will be examined as to his ability in the identification of various powdered drugs and the detection of admixtures.

PHARMACEUTICAL JURISPRUDENCE.

A series of lectures will be given in this subject, comprising the usual subjects of commercial law, such as: contracts, agency, partnership, insurance, etc.

Special lectures will also be given on the statutory regulations of the practice of Pharmacy and the food and drugs act of the State and National Government.

FEES AND EXPENSES.

Tuition Fees: The tuition fee for each year is seventy-five dollars, which entitles the student to one continuous course of lectures and laboratory instruction in all departments.

This covers the cost of drugs and chemicals consumed in the laboratory and other departments. Special students may arrange with the secretary to take any part of the course at a proportionate fee.

Laboratory Deposits: The requisite apparatus necessary for completion of work in laboratories is furnished by the college and to cover breakage to such apparatus as well as to willful damage to building and fixtures a deposit of ten dollars is required.

From this will be deducted at the end of the year apparatus broken, missing or not returnable.

Charge will also be made against deposit for apparatus which is used by the class in common.

The remainder of the deposit will be refunded at close of term.

Locker Fee, $1.00.

PRIZES.

Each year the heads of departments offer various prizes to the students to encourage proficiency in the work. During the session of 1911-1912 prizes will be given in the following branches, to those attaining an average sufficiently high to warrant the giving of such prizes:

Pharmacy—Which will include the work in laboratory, as well as the theory.

Botany—Which will include the work in botany and histology.

Materia Medica—Which will include the work in materia medica, pharmacognosy, toxicology and therapeutics.

GRADUATION.

To receive the degree of Graduate in Pharmacy the candidate must have completed successfully the course of study prescribed by this college.

He must be twenty-one years of age, of good moral character and have had the required amount of practical experience and preliminary training.

Those who successfully complete the course but lack the required practical experience will receive the degree of Bachelor of Pharmacy and the degree of Graduate in Pharmacy issued when the required amount of practical experience and age are obtained.

A diploma fee of ten dollars will be required.

ENROLLMENT.

Places in the lecture halls and laboratories will be assigned to students in order of enrollment. To enroll a Junior student will fill out matriculation blank and forward it to the Registrar with $5.00 for matriculation fee. Matriculation fee to be paid but once. Students are required to report to the Registrar on the first day of school to make arrangements for the payment of tuition, etc.

EMPLOYMENT.

The West and North Sides offer unusual facilities of employment. The College maintains an employment bureau which is able to procure positions for the students, the compensation for such services ranging from six to ten dollars per week.

INSTRUCTION TO STUDENTS.

All students should report to the Registrar immediately upon arrival in the city and he will instruct them as to suitable places for securing board and room. The books requisite for the course will be recommended by each individual instructor during the first week of school. For further information address G. L. Secord, Registrar, 1360 Fulton Street, Chicago, Illinois.

CLASS OF 1911.

Receiving the Degree in Pharmacy.

Stephen B. Burg.....Chicago
Stanley Herbert Collins.....Chicago
A. Casimir Cabanski.....Chicago Heights, Ill.
Howard R. Cross.....Freetown, Ind.
Floyd A. Harley.....Bronson, Mich.
Clyde S. McAtee.....St. Louis, Mo.
R. R. Rains, D. D. S.....Chicago
William R. Richie.....Creal Springs, Ill.
Le Roy E. Stobbs.....Alton, Ill.
Alexander Thompson.....Chicago
Harry L. Wittenberg.....Chicago

CLASS REPRESENTATIVES.

Howard R. Cross.....President
Stephen B. Burg.....Treasurer
William R. Richie.....Valedictorian
Stanley H. Collins..... Salutatorian
Floyd A. Harley.....Poet
Clyde S. McAtee.....Prophet
Alexander Thompson.....Prophecy on Prophet

MATRICULANTS 1910.

Barre, Emil.....Chicago
Bennett, C. W.....Chicago
Bos, A. A.....South Bend, Indiana
Blagden, F. W.....Sycamore, Illinois
Crow, E. A.....Florida
Crow, W. R.....Florida
Ensign, H. S.....Chicago
Dreyfus, H.....Chicago
Harriman, A.....Chicago
Hay, S. H.....Chicago
Liesch, Wm.....Chicago
Lipsictz, E.....Chicago
McAdams, J.....Chicago
McGowan, R. H.....Chicago
Mesirow, J.....Chicago
Moloney, J. P.....Chicago
Lyons, N. A.....Chicago
Nielson, R. A.....Chicago
Palumbo, M. A.....Chicago
Rightman, M. B.....Chicago
Schwartz, S.....Chicago
Stobbs, H. W.....Alton, Illinois
Spires, J. M.....Chicago
Silverberg, E. G.....Chicago
Spikings, M. L.....Chicago
Speyer, A. N.....Chicago
Stolrow, M.....St. Paul, Minn.
Thorson, O. L.....Sioux Falls, S. D.
Tobin, S.....Chicago
Welch, F. M.....Chicago
Woldenberg, W.....Chicago

Department of Arts and Sciences

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Mr. PAUL MUEHLMANN, S. J.,
CURATOR OF MUSEUMS.

EDWARD J. KIEFFER, M. D.,
PHYSICIAN.

JOHN B. MURPHY, A. M., M. D., L.L. D.,
SURGEON.

GEORGE W. MAHONEY, M. D.,
OCULIST.

College of Arts and Sciences

PROSPECTUS.

Charter.—St. Ignatius College was erected in 1869 for the higher education of the Catholic youth of Chicago and vicinity. It is conducted by Fathers of the Society of Jesus. A charter was granted to the institution by the Legislature of the State of Illinois, June 30, 1870, with power to confer the usual degrees in the various faculties of a University. On November 21, 1909, the college became the Department of Arts and Sciences of Loyola University.

Legal Title.—The legal title of the College for the purposes of bequests and donations is

ST. IGNATIUS COLLEGE OF CHICAGO, ILLINOIS.

Curriculum.—The studies pursued in the College comprise the Doctrines and Evidences of the Catholic Religion, Logic, Metaphysics, Ethics, Astronomy, Physics, Chemistry, Botany, Biology, Physiology, Mathematics, Rhetoric, Composition, Elocution, History, the Latin, Greek, English, Spanish, German and French Languages and Literature, Drawing, Physical Culture, Violin, Piano, Voice-Training.

Buildings.—The buildings on West Twelfth Street contain valuable Mineralogical and Natural History Museums, a Library of more than 38,000 volumes, well-lighted classrooms, a recreation hall, a large airy gymnasium, provided with lockers and shower-baths, and in general all the equipment needed for literary and scientific work in a modern college, as well as all arrangements for the convenience and comfort of the students. The Department of Physics has an ample lecture room, and laboratories fitted with all the up-to-date apparatus required for experimental purposes. The Department of Chemistry, in addition to its lecture room, has eight large slate-topped tables for qualitative analysis, so arranged as to accommodate seventy students.

Location.—The College is easy of access, the system of transfers now in vogue on the street cars bringing it in touch with the most distant parts of Chicago. Students

from all quarters of the city and from outlying suburbs, from Hyde Park, Austin, Oak Park, River Forest, Joliet, La Grange, Englewood, Pullman, Edgewater, and Evanston, attracted by the superior advantages for higher education offered by the College, daily make the pilgrimage to its halls. Many students also, seeking to avail themselves of the side advantages to be obtained in such an educational center as Chicago, come from the cities and towns of Illinois, and from neighboring states, and take lodging in the vicinity of the College.

Classical High Schools.—The better to secure the results aimed at in its educational work, and to arrange a more perfect co-ordination between High School and Collegiate studies, the University has deemed it advisable to maintain a closely affiliated system of Classical High Schools. Their purpose is to fit their pupils to meet the College entrance requirements by offering a programme of studies based upon those fundamental principles which, in the judgment of the Faculty, underlie alike the work of the High School and the College. At present these schools number two: The St. Ignatius Academy, 1076 W. Twelfth St., and Loyola Academy, Devon Ave. and the Lake.

GENERAL REGULATIONS.

No Boarding.—The College is intended for day scholars only. Students who live at a distance are not advised to take lodgings in the city, unless they are of a mature age and of a steady disposition.

Entrance.—Candidates for entrance are examined and placed in the class for which their previous attainments have qualified them; and they are expected to bring testimonials from the school which they have last attended.

No one is debarred from matriculation on account of his religious opinions, though all are required to show a respectful demeanor during the ordinary exercises of public prayer.

Distribution of Time.—The Academic Year consists of one session, beginning on the first Monday of September and ending in the latter part of June, when the Annual Commencement, the Conferring of Degrees and the Distributions of Premiums take place.

The College is open every morning at half-past 7 o'clock. Those who come before the time of class proceed at once to the class-rooms and spend the interval in private study. All are required to be present five minutes before half-past 8 o'clock, at which hour the Catholic students hear Mass. The regular class exercises begin immediately after Mass and close at 3:15 p. m.

Thursday is the weekly recreation day.

Attendance.—As regular attendance is an important element in class-standing and an essential condition for successful work, students must not be detained or withdrawn from classes except for very grave reasons. For absence, or for permission to withdraw before the close of the daily session, a note from the parent or guardian will invariably be required. Mere absence does not excuse a student from the obligation of preparing his ordinary recitation or relieve him from any part of his examinations. Frequent absence or tardiness, except on account of sickness, is sufficient cause for dismissal. Students are required to be present eighty-five per cent of the school year to merit promotion in June.

Home Study.—All the endeavors of the Faculty will fail to insure success for the students unless they apply themselves to their studies with diligence and constancy outside of class hours. Approximately twenty-five hours each week are spent in class work; and to prepare recitations and exercises for this work, as well as to review the matter previously seen, at least three hours of home study daily are required. Parents and guardians are, therefore, respectfully urged to insist on this application.

Communications.—Due notice should be given to the Vice-President of a change of residence, or of the contemplated withdrawal of a student.

Examinations and Premiums.—Written competitions are made by the students four times a year. The class-standing of the students, as well as the honors and premiums, are determined partly by these competitions and partly by the daily class-work, each counting one-half. Markings are on the scale of 100. An average below 75 shows an unsatisfactory standing; an average below 70 is failure to pass.

These competitions take place at the end of the months of October, December, February and April, the first three

being followed by a public distribution of premiums and the reading of the percentages obtained by the students. After each of these competitions reports of the conduct and class-standing of students are mailed to parents and guardians. Final written examinations for promotion take place in June.

The medals and prizes given on Commencement Day are awarded in accordance with the results of the quarterly competitions. These prizes are: the medal of excellence for the highest average in the class; first and second honors for a yearly percentage of 90 and 85 respectively.

Discipline.—Though the government of the Institution is mild rather than severe, yet, for the maintaining of order and discipline, without which there can be no training nor development of character, the students are required to be obedient, earnest in study, punctual, and refined of manner; any serious neglect in these essential points rendering the offender liable to effective correction and even to dismissal.

Conduct Outside the Premises.—For faults committed outside the premises, the officers of the College do not consider themselves responsible, as students cease then to be under their jurisdiction; still, in justice to the reputation of the College, the authorities will hold students strictly accountable for offenses of this nature.

Luncheon.—Dining rooms have been fitted up for the students and placed in charge of a reliable caterer, so that students who desire a warm luncheon at the noon hour may be able to obtain it without leaving the premises.

EXPENSES.

Since the Institution is not endowed, it is entirely dependent for support on the fees paid for tuition.

Tuition per session of ten months, for all classes, $60.

Students of general Chemistry and Physics pay $10 per session.

Students engaged in laboratory work deposit $5 with the Treasurer at the beginning of the course, to pay for chemicals and breakage.

Diploma for graduates, $10.

For each conditioned examination taken on the appointed day, a charge of $1.00 is made; if taken at another time, the charge is $2.00.

No extra charge is made for instruction in French, German, Spanish, or Vocal Culture.

The session is divided into Quarters, which begin respectively about the 1st of September, the 15th of November, the 1st of February and the 15th of April.

Payments for conditioned examinations must be made before the examination. Payments for tuition, etc., must be made quarterly or semi-annually in advance. No deduction is allowed for absence, except in case of dismissal or protracted illness.

DEGREES.

According to the Act of the Legislature under which St. Ignatius College was incorporated, its Board of Managers has power "to confer such academic degrees and honors as are conferred by colleges and universities of the United States."

Requirements.

For the degree of Bachelor of Arts the successful completion of the entire Collegiate Course, as outlined in the Catalogue, is required.

The degree of Master of Arts, in course, can be obtained by devoting a second year to the study of Philosophy in the College, or two years to professional studies not in course.

The degree of Bachelor or Doctor of Philosophy will be granted only to Masters of Arts after successful Post-Graduate Courses in Philosophy and Science.

The avowed policy of the University in all its departments is to encourage in every way the gaining of a broad general education as a foundation for the work of a profession.

In no profession is there greater need for such education than in medicine. As a preliminary step in this direction the Collegiate and Medical Departments offer an optional six-year course, including two years of collegiate work in arts and sciences, followed by two years of study in the fundamental branches of medicine. Upon the completion of the following two years of clinical study, that is, at the end of the combined six-year College and Medical

course, the degrees of Bachelor of Science (B. S.) and Doctor of Medicine (M. D.) are conferred.

As an entrance requirement, the student must have completed the Academy or High School course, or its equivalent.

Honorary degrees may be conferred, at the discretion of the Board of Managers, upon those who have deserved well of the community in Literature, Science, or the Professions.

COMPETITIVE SCHOLARSHIPS.

Ten scholarships will be offered the coming year by the Trustees of St. Ignatius College. These scholarships will be awarded by competitive examination.

Conditions of the Contest.

1—Ten Scholarships will be awarded.

2—The Examination will be held towards the close of the year, in St. Ignatius College, 1076 West Twelfth Street, Chicago.

3—Each applicant must have been a pupil of a parochial school in the Archdiocese of Chicago, during the whole session of 1911-1912.

4—No school will be awarded more than one scholarship.

5—Any boy of the eighth grade will be eligible to take the examination.

6—The pupil who makes the highest average will be entitled to a free education in the entire High School and Collegiate courses; the winners of the other nine scholarships will receive a free education in the High School course. A scholarship student failing to make an average of 85 per cent in any competition or examination during his course will, thereby, forfeit his scholarship.

7—Every precaution is taken to make the test as fair as possible. The pupils do not write their name or the name of their school on their papers, but on separate cards, which are placed in sealed envelopes. These envelopes are opened only after the papers have been examined, and in the presence of the competitors.

Matter of Examination.

English Grammar.—Etymology, rules of syntax, corrections of false syntax with reasons, parsing, analysis of sentences.

Original Composition.—Including punctuation, spelling, use of capital letters, etc.

Arithmetic.—The whole arithmetic, particular stress being laid on fractions, common and decimal, percentage, interest, proportion, square root, cubic root, and mensuration.

SCHOLARSHIPS.

Friends of education who wish to donate scholarships can found one in perpetuity by giving the sum of Fifteen Hundred Dollars. Sixty Dollars will provide an annual scholarship.

The following are now held by the College:

PERPETUAL.

The Miss McConville Scholarship.
Memorial Scholarship: Margaret Gertrude Onahan.
Damen Council, 650, Knights of Columbus Scholarship.
The Hon. William J. Onahan Scholarship.
The Hon. Charles A. Mair Scholarship.
The Hon. Thomas Brenan Scholarship.
Memorial Scholarship: Mrs. Mary White Riordan.
The Henry Venn, A. B., Class of 1906, Scholarship.
Memorial Scholarship: Mr. and Mrs. Pancratius Metz.
The Mr. and Mrs. Michael J. Riordan Scholarship.

ANNUAL.

The De Soto Council, Knights of Columbus Scholarship.
The Rev. Henry J. Dumbach, S. J., Scholarship: Mr. Andrew Maguire.

SPECIAL PRIZES.

Intercollegiate English Prize.—A purse of $100.00 ($50.00 for the first prize, $20.00 for the second, $15.00 for the third, $10.00 for the fourth, and $5.00 for the fifth) is offered yearly by Mr. D. F. Bremner, of Chicago, for excellence in English essay writing. The purse is open to the competition of the Jesuit Colleges of the Missouri Province, which are:

St. Louis University, St. Louis, Mo.
St. Xavier College, Cincinnati, Ohio.
St. Ignatius College, Chicago, Ill.
St. Mary's College, St. Marys, Kan.
Creighton University, Omaha, Neb.
Detroit College, Detroit, Mich.
Marquette University, Milwaukee, Wis.
St. John's College, Belize, British Honduras.
St. Ignatius College, Cleveland, Ohio.
St. John's University, Toledo, Ohio.
Sacred Heart College, Prairie du Chien, Wis.

Intercollegiate Latin Prize.—For the best Latin essay from competitors of the same colleges, a gold medal is offered by Very Rev. R. J. Meyer, S. J., Provincial.

The Alumni Medal.—A gold medal for the Highest Honors of the Senior Class is offered by the Alumni Association of St. Ignatius College.

The John Naghten Debate Medal.—Mr. John Naghten has offered a gold medal to be awarded to that member of the Chrysostomian Debating Society who shall deliver the best speech in the annual Public Debate of the Society.

The Harrison Oratorical Medal.—A gold medal is offered by Hon. Carter H. Harrison, LL.D., for the best oration delivered in the Oratorical Contest, which is open to the students of the Senior, Junior and Freshman Classes.

The Dumbach Chemistry Medal.—A gold medal is offered in memory of Rev. H. J. Dumbach, S. J., by Mr. Andrew Maguire to the student who makes the best examination in Chemistry.

The Clifford Medal of Excellence.—A gold medal is offered by Hon. R. W. Clifford for the Highest Honors in the collective branches in the Junior Class.

The Murphy Medal of Excellence.—A gold medal is offered by Dr. John B. Murphy for the Highest Honors in the collective branches in the Sophomore Class.

The Gibbons Medal of Excellence.—A gold medal is offered by Hon. John Gibbons for the Highest Honors in the collective branches in the Freshman Class.

The Jos. F. Pribyl Violin Medal.—A gold medal is offered by Prof. Jos. F. Pribyl for progress on the violin.

SOCIETIES.

St. Ignatius College, like other centers of learning, has always been ready to sanction and encourage such societies as tend to promote the various interests of the students. The following societies in particular are deemed worthy of special mention:

THE ALUMNI ASSOCIATION

was organized February 10, 1895. Its object is to preserve and strengthen the ties of fellow-feeling and friendship among former students of the College, and to afford them an opportunity of showing their attachment and esteem for their Alma Mater. Any graduate or student of the College, or of any Jesuit College or University, may apply for membership.

THE SODALITY

has for its object the cultivation in its members of an earnest religious spirit and a tender devotion to the Mother of God. It was established November 3, 1872. It was aggregated to the Sodality of Rome, under the title "Our Lady Help of Christians," and under the patronage of St. Aloysius, on the 19th day of January, 1873.

THE CHRYSOSTOMIAN DEBATING SOCIETY

was organized on the 10th of November, 1875. It affords opportunity for acquiring skill in the art of speaking, gives much useful information to its members, and develops in them a taste for literary studies. Many of the former members of this society attribute much of their success in life to the address and readiness of debate which they acquired during their term of membership. The usual exercises at the weekly meetings are the reading of original essays and

the discussion of subjects of debate approved by the President.

THE GYMNASIUM AND ATHLETIC ASSOCIATION

was formed to encourage physical exercise, and to create and foster a college spirit among the students. It has a Gymnasium which is fitted out with suitable apparatus, and in which regular instruction is given by a competent athletic instructor. The football and baseball teams do much to make college life pleasant, and the laurels they are accustomed to win on local fields are much appreciated by their fellow-students.

THE STUDENTS' LIBRARY ASSOCIATION.

The Students' Library was established with the view of forming in the students a correct literary taste, and of safeguarding them against the many dangers of indiscriminate reading. Students are strongly encouraged to supplement their regular class work by a judicious course of reading under the direction of their professor. The library has a goodly number of volumes, and no charge is made for the use of them. In connection with the library is a reading room well stocked with the standard magazines of the day.

THE ORCHESTRA.

The College Orchestra held its first rehearsal on October 2, 1900. Its purpose is to develop the musical talent of the students, and to encourage them to aim at proficiency in instrumental music.

THE GLEE CLUB

while giving pleasant recreation to its members, adds much to the enjoyment of College celebrations.

THE ST. IGNATIUS COLLEGIAN.

The St. Ignatius Collegian, published quarterly by the students, is intended to foster literary efforts in the students of the present, to chronicle College doings and to serve as a means of intercommunication with the students of the past.

It was established in 1902.

OFFICERS OF SOCIETIES.

ST. IGNATIUS COLLEGE ALUMNI ASSOCIATION.

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VICE-PRESIDENT
EDWARD F. GARRAGHAN, M. D.

HONORARY VICE-PRESIDENTS
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REV. JOHN J. CODE, 80's
LEO J. DOYLE, '90's
ARNOLD D. McMAHON, '00's
LAWRENCE J. WALSH, '10's

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THEODORE E. CORNELL

CORRESPONDING SECRETARY
JOHN J. KILLEEN, M. D.

TREASURER
PAYTON J. TUOHY

HISTORIAN
REV. CHARLES F. CONLEY

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SODALITY OF THE BLESSED VIRGIN MARY.

Director.
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THADDEUS C. ZAMIARA . . . . . SECOND ASSISTANT
FRED. L. SCHMITT . . . . . SECRETARY
JAMES TORMEY . . . . . TREASURER

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EDWARD V. WALSH	JAMES MOLLOY
JAMES FITZGERALD	FRANCIS VAUGHAN
THOMAS CLENNON	EUGENE FAMMEREE
JAMES MAJOR	WARD FITZPATRICK
RICHARD REGAN	PAUL CARBERRY
HARRY BEAM	THOMAS WHEELER

THE CHRYSOSTOMIAN DEBATING SOCIETY.

REV. FRANCIS X. SENN, S. J. . . . . PRESIDENT
JOSEPH F. RYAN . . . . . VICE PRESIDENT
THADDEUS ZAMIARA, First Term . . RECORDING SECRETARY
RICHARD C. BYRNE, Second Term . . RECORDING SECRETARY
J. FRED. REEVE, First Term . . CORRESPONDING SECRETARY
THOMAS J. O'BRIEN, Second Term . CORRESPONDING SECRETARY
WINDTHORST J. BERGHOFF, First Term . . . TREASURER
JOHN L. LEMMER, Second Term . . . . . TREASURER
WILLIAM J. HIGGINS, LOUIS C. ROCKET } FIRST TERM CENSORS
GEORGE P. DEVITT, FRED. L. SCHMITT } SECOND TERM CENSORS

ST. IGNATIUS COLLEGIAN.

PHILIP J. CARLIN, '11 . . . . . EDITOR

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ACKNOWLEDGMENTS.

The President and Faculty wish to express their grateful appreciation of favors received during the year. The following benefactors are worthy of special mention:

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Dr. James W. Ward.

GENERAL ANNOUNCEMENTS FOR 1911-1912.

Matriculation.—Owing to the rush of new students immediately before the Fall Opening, parents are requested to enter their sons as soon as possible after August the 15th. Office hours from 9 to 12 a. m.

Examination of Conditioned Students will take place on the following dates:

Tuesday, August 29.—Latin, Greek and English.

Wednesday, August 30.—History, Mathematics and Science.

Entrance Examinations will be held on Thursday, August 31, and Saturday, September 2.

Fall Opening.—Classes reopen on Monday, September 4.

FACULTY.

Rev. ALEXANDER J. BURROWES, S. J.,
Evidences of Religion.

Rev. EDWARD J. GLEESON, S. J.,
Mental Philosophy, Metaphysics, Ethics.

Rev. FRANCIS X. SENN, S. J.,
Junior Class.

Rev. P. A. MULLENS, S. J.
Sophomore Class.

Rev. FRANCIS X. REILLY, S. J.
Freshman Class.

Mr. WILLIAM AGNEW, S. J.,
Physics, Mathematics, Geology.

Mr. PAUL MUEHLMANN, S. J.,
Chemistry, Mathematics.

Rev. CHARLES COPPENS, S. J.,
Literature, Evidences of Religion, History of Philosophy.

Rev. AUGUSTINE M. EFFINGER, S. J.
Logic, German Literature.

MICHAEL A. LANE, B. S.,
Biology, Physiology.

Mr. T. EDWARD McGILLAN, A. B.,
Oratory, Elocution.

Rev. JOHN B. DeSCHRYVER, S. J.,
French Literature.

Mr. JOSEPH F. PRIBYL,
Instrumental Music.

Mr. ERNEST C. SUMNER,
Mr. O. F. DODGE,
Vocal Music.

THE COLLEGE.

The College Course extends through four years and embraces instruction in the departments of Philosophy, Language, Literature, History, Science, and Mathematics. The aim of the course is to give the student a complete liberal education, which will train and develop all powers of the mind, and will cultivate no one faculty to an exaggerated degree at the expense of the others. The college ideal is not to foster specialization, but to cultivate the mind, to build up and strengthen true character, and to impart that accuracy of thought and reasoning and that breadth of view which must ever be the foundation as well of more advanced scholarship as of eminence in the professions or other stations in life.

To attain this end, the studies prescribed in this course, and leading up to the degree of Bachelor of Arts, are regarded as fundamental and essential in a liberal education, and therefore are not left to the student's option. It is especially to be noted that practically all the studies in the Freshman and Sophomore years are prescribed. Only in the Junior and Senior years do some of the studies become elective.

ENTRANCE REQUIREMENTS.

1. All applicants for admission to the College Department of Loyola University must give satisfactory evidence of good moral character.

2. Candidates who have satisfactorily completed the course prescribed by the Academies of Loyola University will be admitted without examination.

3. Graduates from other Academies or High Schools will be admitted without examination, if they present evidence that they have completed the work equivalent to that required by the course in the Academies of the Loyola University, as set forth in their catalogue.

4. All other applicants for admission, who wish to enter as candidates for the A. B. Degree, will be required to pass a satisfactory examination in the following subjects:

Latin.—Authors: Caesar's Gallic War, four books; Nepos' Lives (6) may be taken in place of two books of Caesar; Cicero's Orations against Catiline and for Archias;

Cicero's De Senectute and Sallust's Catiline or Jurgurthine War may be taken as substitutes for three of the above orations; Virgil, four books of the Aeneid, or their equivalent from the Eclogues, Georgics, and Ovid's Metamorphoses.

Grammar and Composition.—The examination in Grammar and Composition will require a thorough knowledge of the whole Latin grammar, together with such facility in writing Latin Prose as is acquired by one who satisfactorily completes the course of exercises prescribed by St. Ignatius Academy. This course is based on Arnold's Latin Composition, for which see catalogue of St. Ignatius Academy.

Greek.—Authors: Xenophon's Anabasis, four books or their equivalent; Homer's Iliad or Odyssey, one book.

Grammar and Composition.—The examination in Grammar will require a thorough knowledge of etymology, of the syntax of cases, the rules of concord and prepositions, the syntax of the verb. The theme will be based on Xenophon, and will test the candidate's ability to translate into Greek simple sentences, with special reference to the use of forms, particularly of the irregular verbs and the common rules of syntax.

English.—Texts Prescribed for Reading and Study: Two plays of Shakespeare, Burke's Conciliation with the Colonies or American Taxation; Irving's Sketch Book; one essay of Macaulay; Scott's Lady of the Lake; Goldsmith's Deserted Village; Tennyson's The Passing of Arthur; Lowell's Vision of Sir Launfal; Coleridge's Ancient Mariner.

The applicant should make himself familiar with the characters, the plot, incidents and characteristic diction of each work. Equivalents will be accepted.

Rhetoric and Composition.—The applicant will be examined on the principles of rhetoric as set forth in Thorndike's Elements of Rhetoric, or in a work of equal standing. The composition will test the candidate's ability to write clear, idiomatic English. The subject will be taken from his experience and observation, or from the books he presents for examination. The spelling and punctuation must be correct, the sentences well constructed. The writer must show some discrimination in the choice of words and ability to construct well ordered paragraphs.

Mathematics.—Algebra to Indeterminate Equations (included). Plane and Solid Geometry. (Plane Trigonometry will be required in 1912.)

History.—Greek and Roman History to the Fifth Century A. D.; History of the United States; Modern History; Migrations of Nations to Renaissance.

Civics.—Macy's Lessons in Civil Government.

5. Students who have not taken up the study of Latin or Greek in the Academy or High School are admitted to the Collegiate course leading to the Degree of Bachelor of Science. They will be required to present credits in one modern language and the natural sciences equivalent to those granted in Latin or Greek or both.

COLLEGE CLASSES.

Freshman Class.—The object of this class is the cultivation in a special manner of literary taste and style, which is to be effected chiefly by the study of the best poets and prose writers. The Greek and Latin classics are studied for this purpose, together with such English writers as are noted for the highest qualities of literary substance and form. Special emphasis is laid on the study of poetry. Moreover, in this class, as in the others of the course, the literary work is supplemented by that training in Mathematics, Science and History, which is required by a liberal education.

Sophomore Class.—The work of this year centers on the study of Oratory and Historical Composition. The nature and types of Oratory, principles of argumentation, the nature and requirements of historical writing, are thoroughly investigated—the best models, ancient and modern, forming the subject-matter of study. Thus, while perfecting literary taste, the class is intended to develop that grasp and perspective of structure without which composition on a large scale is impossible.

Junior Class.—The object of this class is to form the mind to habits of correct reason and to impart sound principles of philosophy. Logic, Rational Philosophy—being, causality, the nature of matter; the human soul, its nature, origin, operation, etc.—are the chief subjects of study. The additional training received from the study of the history

of Philosophy and various literary topics is by no means neglected.

Senior Class.—The study of Philosophy is continued this year in courses on the two important subjects of Natural Theology and Ethics. These courses treating of the existence of God, the origin of Moral Obligation, the Natural Law, Duties and Rights, etc., form the crowning work of a liberal education. Their aim is to teach sound principles of conduct, to give the students clear ideas on the purpose and destiny of man, and on the problems of life and their solution, as furnished by ethical principles.

OUTLINE OF COLLEGE COURSE.

DEPARTMENT OF PHILOSOPHY.

1. LOGIC.
   - A. Formal Logic or Dialectics.
     1. Definition. General idea of reasoning. Logic; natural and scientific.
     2. Elements of Logic.
        (a) Material Elements. Acts of the mind; ideas, judgments, reasoning; their nature, kinds, properties and external expression.
        (b) Formal Element. Inference from a combination of judgments; its requisites, external expression. Principles and laws of reasoning. Forms of Argumentation.
     3. Kinds of Reasoning.
        (a) Deductive. The Syllogism; demonstrative, probable, sophistic. Fallacies.
        (b) Inductive. Its nature, requisites, use and abuse.
     4. How to build an argument. Invention, definition, division.
     5. Method, analytic, synthetic. Science.
   - B. Material Logic or Criteriology.
     1. Truth, its nature, kinds.
     2. Logical truth; its attainment; states of the mind with regard to truth.
     3. Certitude, its nature, kinds.
     4. Skepticism. Kinds: Universal, Methodical Doubt. Agnosticism, Materialism, Positivism, Idealism. Christian Science, Rationalism, Traditionalism.
     5. Means of attaining truth. Our cognoscitive faculties; senses, external and internal; intellect. Authority.
     6. Criteria of truth; proximate, ultimate.

II. METAPHYSICS.

A. General Metaphysics or Ontology.

1. Being. Objective Concept. Essence.
2. States of Being. Existence. Possibility, internal, external. Source of internal possibility.
3. Transcendental properties of Being: one, true, good.
4. Kinds of Being: Substance and Accident.
   (a) Notion of Substance.
   (b) Nature, Individual, Supposite, Person.
5. Notion of accident.
   (a) Existence of accident separate from substance.
   (b) Species of accidents.
   (c) Space, place. Compenetration. Multilocation.
6. Causes of Being.
7. Perfection of Being.
   (a) Finite, infinite.
   (b) Contingent, necessary.
   (c) Time, Eternity.
   (d) Order, beauty, sublimity.

B. Special Metaphysics.

1. Cosmology.
   (a) Origin of the World. Materialism. Pantheism. Creation. Age of the World. Atheistic and Theistic Evolution. End of Creation.
   (b) Constitution of Bodies.
   (c) Organic bodies. Life. Degrees and Functions. Senses. Experimental psychology.
2. Rational Psychology.
   (a) Nature of the human soul. Union with body.
   (b) Properties: Spiritual, immortal.
   (c) Faculties: 1. Cognoscitive. Intellect. Acts. Origin of Ideas. 2. Appetitive. Rational, the Will. Liberty.
3. Natural Theology.
   (a) God, not Nature, nor Power behind Nature, nor World soul or spirit, but a Personal Being distinct from the Universe. Pantheism, Atheism, Agnosticism.
   (b) His existence known not immediately, nor by intuition, nor by an innate idea, but by a posterior demonstration.
   (c) Essence of God. Self-existence. Necessary. Infinite, Eternal, Immutable. Immense.
   (d) Attributes: Unity. Simplicity. Polytheism. Dualism. Anthropomorphism. Origin of evil, Physical and Moral.
   (e) Knowledge of God.
   (f) Will of God.
   (g) Influx into creatures. Creation. Conservation. Concourse.
   (h) Providence. Distribution of temporal good and evil.

III. ETHICS OR MORAL PHILOSOPHY.

Definition. Truths assumed from Metaphysics.

A. General Ethics.

1. Subjective and Objective ultimate end of Man.
2. Human action. Imputability. Merit. Impediments.
3. Origin of morality of human action in the abstract and in the concrete.
4. Norm of Human Action.

(a) External Norm. Law, External, Natural, Positive, divine and human Obligation.
(b) Internal Norm. Conscience.

B. Applied Ethics.

1. Rights and Duties. Relation to others as individuals.

(a) Duties to God.
(b) Duties to Self—Suicide. Danger.
(c) Duties to Fellow-Men. Love. Enemies.

1. To their Souls:

(a) To their intellect. Lying. Mental Reservation.
(b) To their Will.

2. To their body. Self-defense.
3. To their honor. Dueling.
4. To their property. Right of private property in abstract. Communism. Socialism. Single Tax. Right to private property in the concrete.
5. Ways of acquiring property.

(d) Restitution.

2. Society. Relations to others as members of society.

(a) Definition of Society.
(b) Origin of society in the abstract. Man social by nature. Hobbes. Rousseau. In the concrete, some human fact.
(c) Kinds of society. Primary: the family, state and church. Secondary Societies.

(a) The family:

1. Marriage, of divine institution; hence in its essentials, independent of civil authority.
2. Properties: Unity and Indissolubility; hence divorce impossible by human authority.

(b) Civil Society.

1. Origin in general from God. Its form determined by some human fact.
2. The family, its unit.
3. Its proximate and ultimate end.
4. Civil authority in the abstract from God; hence the absurdity of the Social Contract of Rousseau; in the concrete determined by some human fact.
5. Forms of civil society. Stability. Liberty, true and false.

6. Tyranny. Usurpation. Transmission of civil authority.
7. Constitution, natural and written.
8. Minor societies. Right to existence and self-government. Secret societies. Relation to primary societies.
9. Functions of the supreme authority; legislative, judicial, executive; taxation, militia, capital punishment.
10. Social Order:
(a) Material order. Political Economy.
(b) Moral order. Religion. Union of State and Church. Liberty of Conscience. Toleration; dogmatic, personal, civil. Liberty of speech and of the press. Education. Common Schools.
11. Civilization.
(c) International Society.
1. International Law. Sources.
2. War.
3. Intervention.
(d) Religious Society. The Church.
1. Origin. End.
2. Nature. Rights.
3. Relation to Civil Society.
4. Supreme Authority. Independent of the State. Investure. Secular Arm. Veto of Secular Rulers in the Election of the Pope.

The number of periods indicates the amount of time given to a subject per week. A period, unless otherwise specified, stands for fifty minutes.

LATIN.

FRESHMAN CLASS.

(Five periods of 60 minutes each).

Precepts: A thorough review of Latin prosody and versification.

Authors—first term: Horace, Ars Poetica; Virgil, Aeneid, books 6 and 12; Livy, books 1 and 21.

Second term: Livy, books 21, 22; Horace, Select Odes.

Sight Reading: Selections from Christian Hymnology; Livy.

Practice—both terms: Bradley's Aids to Writing Latin Prose, Part 1, and selections from Part 11 to Exercise 60. Two themes a week. A theme in imitation of the prose authors studied about every fortnight.

Memory: From the authors read in class.

SOPHOMORE CLASS.

(Five periods of 60 minutes each).

Authors—first term: Cicero, Pro Lege Manilia or Pro Milone; Horace, Select Odes and Epodes.

Second term: Horace, Epistles and Satires; Cicero, Pro Ligario; Tacitus, Agricola.

Sight Reading: Selections from the authors assigned above; Tacitus, Germania or Annals; Selections from the Latin Fathers.

Practice—both terms: Bradley's Aids, selections from Part 2, from Exercise 50 to end of book. Two themes a week. One composition every fortnight in imitation of the authors studied. Off-hand translation from English into Latin.

Memory: Select passages from the authors read.

JUNIOR CLASS.

(Three Hours).

Authors—first term: Cicero, Quaestiones Tusculanae; Plautus, Duo Captivi; History of Latin Literature, Mackail (Scribner's), for reference. Essays in Latin, Bradley's Aids.

Second term: Cicero, Quaestiones Tusculanae, continued; Pliny, Letters; Juvenal, Selections; Selections from the Latin Fathers. Essays in Latin.

GREEK.

FRESHMAN CLASS.

(Five Periods).

Precepts—first term: The syntax of the verb repeated; general rules of quantity in connection with the author; the Homeric dialect, cf. Kaegi-Kleist, Nos. 209-215. Brief sketch of Greek Epic and Lyric poetry. Cf. Jebb's Classical Greek Poetry.

Second term: The precepts of the first term thoroughly repeated.

Authors—both terms: Plato, Apology or Crito; Homer, Odyssey; selections from books 5 to 12. Lyrics selected from the various Greek poets—Sappho, Simonides of Ceos, Pindar (Olympian XII or selections from a longer ode), Meleager. Cf. Garvy's Anthology.

Sight Reading—both terms: The New Testament or selections from the authors read in class.

Practice—both terms: A written theme once a week, based on the authors studied and illustrating the syntax of Attic Greek; or Kaegi-Kleist Exercise Book 2, Nos. 52-66.

Frequent written reviews in class.

SOPHOMORE CLASS.

(Five Periods).

Authors—first term: Homer, Iliad, select passages: structure of the poem. Demosthenes' Philippics. Analysis of first or third Philippic to be seen in detail.

Second term: Demosthenes on the Crown, with detailed analysis. Sophocles, Antigone, Oedipus Tyrannus or Oedipus Coloneus.

Sight Reading—both terms: The New Testament or St. Chrysostom, Eutropius, or St. Basil.

Practice—both terms: Easy themes built on sentences in the text, once a week. Frequent written reviews.

JUNIOR CLASS.

(Three Periods).

Authors—both terms: Plato, Phaedo, analysis; Keep's Stories from Herodotus; Aeschylus, Prometheus Bound or Agamemnon.

ENGLISH.

FRESHMAN CLASS.

(Five Periods).

Precepts: Literary Aesthetics; Theory of the Beautiful, of the Sublime; Taste; Imagination; Theory of Literature; Poetics: Nature and kinds of poetry; elements of poetic substance and form; characteristics of Lyric and Epic Poetry. Fiction: Constructive principles of story-writing; elements of Fiction, viz., plot, character, situation, purpose; Realism and Romanticism in Fiction; development of the English Novel.

Text-book: Coppens' Introduction, with Professor's Notes.

Texts for study: Newman's Lecture on Literature and Essay on Aristotle's Poetics; Selections from Newman, Ruskin, De Quincey, Milton, Coleridge, Wordsworth, Keats, Tennyson, DeVere.

History of English Literature and Criticism. Anglo-Saxon, Semi-Saxon, Old English and Middle English Periods; The Elizabethan age; The Transition Period; The Classical Age.

Text-book: Jenkins' Handbook of English Literature.

Practice: One composition a week on subjects chiefly literary.

SOPHOMORE CLASS.

(Five Periods).

Precepts: Oratory: Nature and types of oratory; division of the oration; style in public speaking; methods of oratorical composition; principles of argumentation.

Text-book: Coppens' Art of Oratorical Composition.

History: Principles of historical composition; ethical requirements of history; representative English and American historians.

Texts for study: Burke's speech on American Taxation and Address to the Electors of Bristol; Webster's Reply to Hayne, Girard College Case, Knapp Trial, Commemorative Address on Adams and Jefferson; Newman's Second Spring. Other speeches of Webster, Calhoun and Clay. Famous French Orators.

History of English Literature and Criticism: The Romantic School of the Nineteenth Century; American Literature.

Text-book: Jenkins' Handbook of English Literature.

Practice: One Composition a week. Analysis and criticism of speeches.

JUNIOR CLASS.

(Four Periods).

Precepts: The Drama; Laws and technique; theory of the Tragic; of the Comic.

Texts for study: Shakespeare's Plays; Interpretation, critical and comparative study.

Practice: One composition a week or every fortnight. Essays, critical and philosophical.

SENIOR CLASS.

(Four Periods).

Precepts: Theory of expository writing; the critical and philosophical essay; stylistic and structural requirements; historical development of the English essay.

Texts for study: Essays of Macaulay, Newman, Brownson, Archbishop Spalding, etc. Analysis and comparative study of essays, with the emphasis laid on substance and structural organization.

Practice: One composition a week or every fortnight. Subjects chiefly critical and philosophical.

Text-books: Wentworth's Complete Algebra and Analytical Geometry; Murray's Calculus.

MATHEMATICS.

FRESHMAN CLASS.

(Three Periods).

First term: Algebra, c. 22, Choice, etc., to end of book.

Second term: Analytical Geometry, four chapters to Parabola excl., supplementary propositions.

SOPHOMORE CLASS.

(Three Periods).

First term: Analytical Geometry, Parabola to end of book.

Second term: Calculus.

JUNIOR CLASS.

(Two Periods).

Both terms: Calculus continued and finished.

HISTORY.

FRESHMAN CLASS.

(Three Periods).

This course deals with the causes which led to the revolutions against religious authority in Germany under Luther and in England under Henry VIII. It treats of the social upheavals and wars which followed from the religious rebellions. It embraces the period from the suppression of the Templars to the reign of Louis XIV.

The Renaissance; the causes of the Protestant Revolution; the Exile of the Papacy; the great Schism of the West; the Hundred Years' War; the Ottoman Empire; the Inquisition, universities, guilds.

The age of Charles V; the Protestant Revolution; Catholic Revival; wars of the Protestant Revolution; the Huguenots; Thirty Years' War.

Spain and England; Spain in the New World; the Puritans; Age of Louis XIV.

Both terms: Guggenberger, History of the Christian Era, Vol. 2.

SOPHOMORE CLASS.

(Three Periods).

This course deals with the social and political revolutions of the eighteenth and nineteenth centuries. It gives the long struggle of the people for greater rights and liberties. It begins with the Hanovarian succession in England and ends with a brief account of contemporary history.

The Hanovarian Succession in England; the beginning of Russia; Wars of the Austrian Succession; Colonies of North America; Seven Years' War; Division of Poland.

Causes of the Political and Social Revolutions of the eighteenth century; American War of Independence; French Revolution; Era of Napoleon; Catholic Emancipation in England.

Europe in the first half of the nineteenth century; Crimean War; Italy; Franco-German War; Civil War in the United States; great powers to-day; Church and State.

Both terms: Guggenberger, History of the Christian Era, Vol. 3.

JUNIOR AND SENIOR CLASSES.

(One Period).

Both terms: Turner's History of Philosophy.

History of Philosophy embraces the historical development and scientific correlation of philosophical systems, with such additional information, biographical and otherwise, as may be needful for the fuller understanding of the subject. One lecture is delivered weekly, the students being required to furnish written dissertations upon the matter treated.

Ancient Philosophy. The Vedas. Theories of Egypt and Asia. The Ionic School. The Pythagoreans. The Sophists. The Socratic School.

The Epicureans. The Stoics. The Sceptics. The Syncretists and Roman Philosophy. Jewish-Alexandrian Philosophy. Neo-Pythagoreanism. Neo-Platonism. The Fathers of the Church. The Gnostics. The Schoolmen. The Mystics. The Revival of Platonism, of Aristotelianism. Arabian and Jewish Philosophy.

Modern Philosophy. Descartes and his followers: Malebranche, Spinoza, Bayle, Locke, Hume, the Encyclopaedists. Leibnitz, Wolf, Berkley, Rousseau. The Scottish School. The Transcendentalists, Kant, Fichte, Hegel, Schelling, and their Schools of thought. Positivism, Modern Evolution Theories. The Neo-Scholastics. Thomistic Philosophy.

ASTRONOMY.

SENIOR CLASS.

(Two Periods).

Young's Astronomy—historical, descriptive and practical. Lectures and recitations. For reference, Clerk's History of Astronomy, Newcomb's "The Stars," Lockyer, Langley.

GEOLOGY.

General Course in structural, dynamic and historical geology. Study of the geology of Illinois. Field work. Petrology and Mineralogy. The college possesses a collection of the more important minerals and rocks; in addition to this the students have access to the Field museum. Lectures, recitations and written exercises. For reference Dana and Le Conte.

PHYSIOLOGY.

A course in which the student will be taught the main facts of Physiology, together with a general survey, gross and microscopic, of the mammalian organs and the fundamental mammalian tissues. Lectures, recitations, demonstrations and laboratory work. Specially adapted for those desiring to teach elementary Physiology in academies or high schools.

BIOLOGY.

Animal Biology; an elementary study of animal forms; morphological inter-relations; unicellular organisms; multicellular organisms; generally accepted theories of the genesis of life. Lectures, recitations and laboratory work.

COMBINED COURSE.

A combined course in which will be taught the main facts of biology, in shortened form, together with the work of the course in Physiology, special stress being laid on the latter. This course is recommended to the student who wishes to acquaint himself with the animal body regarded as a chemophysical mechanism, but who does not contemplate teaching.

POLITICAL SCIENCE.

General Principles of Law: Municipal Law; civil rights, contracts, real estate, criminal law. International law; its nature and authority; War and Peace, Rights and Duties of Belligerents; Rights and Duties of Neutrals.

General Principles of Government: State Governments. Constitution. Their nature, object, establishment. Departments; legislative, executive, judicial. The National Government: Origin, nature, and growth. Its Function; the legislative, the judiciary, the executive.

CHEMISTRY.

General Inorganic Chemistry. Course I.—Prerequisite High School credits in Chemistry from an accredited High School or Academy.

The laboratory work aims at familiarizing the student with the more common elements, and their compounds. Moreover, it supplies the necessary empirical basis for understanding the laws and theories of Chemistry as explained in the lectures. Again, the powers of accurate observation are stimulated, and logical deduction, based on observation, inculcated.

Laboratory notes are handed in every Monday for inspection and correction.

Text—Alexander Smith: General Chemistry for Colleges.

Laboratory Manual—Smith & Hale, Laboratory Outline of General Chemistry.

Qualitative Analysis. Course II.—This course aims at giving a thorough knowledge of the analytical reactions necessary for recognizing the common metals and acid radicals.

After a review of the theory of dissociation and mass action as fundamental principles of analytical procedure, balancing of equation for oxidation and reduction and methods of analysis are discussed.

Each student is required to systematize the Group manipulation from the manipulations of the individual metals. Refined inorganic tests for metals and acid radicals are included in the course.

A number of the "Unknowns" are analyzed and reported on. These returns together with repetitions and written examinations at the end of the semester are required for full credits.

Text—Otis C. Johnson: Analytic Equations.

Reference—Prescott's Johnson.

Quantative Analysis. Course III.—In the lecture course the fundamental theories of analytical chemistry and the best methods of volumetric and gravimetric analysis are studied. Such arithmetrical processes as are applied to chemical calculations are taught. In the laboratory a carefully selected series of determination must be successfully completed by each student and reported on. The laboratory course aims to aid the student, acquire manipulative skill so that he will be able subsequently, with the help of a standard reference work on analysis, to become proficient in any line of quantitative analysis, to which he may wish to apply himself.

Elementary Organic Chemistry. Course IV.—The course consists of lectures and laboratory work. In the lectures the principal series of

carbon compounds and their derivatives are thoroughly studied. The theories that are of special aid to organic chemistry are discussed. Some attention is given to the organic chemistry of vital processes, so that the course will prove of interest to the general student and at the same time practical for those preparing for professions.

The laboratory course aims at familiarizing the student with the qualitative and quantative methods for determining the principal constituent of an organic compound as well as the various kinds of organic reactions, such as oxidatic reduction, saponification, esterification, and substitution. The actual yield obtained in the experiment is determined and compared with the theoretical one.

Text—F. J. Moore: Outlines of Organic Chemistry.

Laboratory Manual—Gutterman: Practical Methods of Organic Chemistry. J. B. Cohen: Practical Organic Chemistry.

PHYSICS.

A continuation of the High School Course involving a more extended development of the principles of Physics, the derivation and interpretation of formulas, and their application to physical problems.

(*a*) *Molecular Physics and Heat.*—A course of advanced laboratory work involving the determination of vapor pressures and densities, coefficients of friction of gases and liquids, molecular electrical conductivities, freezing and boiling points, latent and specific heats, etc.

(*b*) *Light*—A course of advanced laboratory work in light, consisting of accurate measurements in diffraction, dispersion, interference and polarization.

(*c*) *The Theory and Use of Alternating Currents.* A discussion of stationary and moving currents, including transformers, transmission, various types of dynamos and motors, determination of energy factors, construction and use of special alternating current apparatus.

Both Semesters, Lectures and Recitations three periods a week; laboratory, two periods a week.

Prerequisite: Plane Trigonometry, Elementary Algebra, Geometry, High School Physics.

EVIDENCES OF RELIGION.

FRESHMAN CLASS.

(Two Periods).

The Church as a Means of Salvation; The Last Things; The Christian's Duties Towards God, etc., Wilmer's, pp. 379 to 493, the part from p. 399 to p. 422 excl., being omitted.

SOPHOMORE CLASS.

(Two Periods).

Grace; The Sacraments, etc., Wilmer's, pp. 279 to 379.

JUNIOR CLASS.

(Two Periods).

The Creation of the World; the various grades of Creation, etc., Wilmer's, pp. 200 to 279; Christianity a Revealed Religion, etc., pp. 1 to 77.

SENIOR CLASS.

(Two Periods).

The basis of Morality; Law as the Objective Norm of Human Actions, etc., Wilmer's, pp. 399 to 421; the Constitution of the Church, etc., Wilmer's, pp. 77 to 200.

PEDAGOGY.

As there is a growing tendency on the part of the graduates to enter the teaching profession, a course in pedagogy has been opened, which prepares the graduate to teach in high schools and normal schools, and to be principal of a four years' course high school.

Course 1. The History of Education. Three hours a week, one term. Text-book: Monroe.

A Survey of Greek and Roman Education: Plato's Republic, Aristotle's Politics, and Quintilian's Education of an Orator. Education in the Middle Ages. Drane's Christian Schools and Scholars, and Montalembert's Monks of the West. The Jesuit System of Education. Hughes and Schwickerath. La Salle, Quick, Montaigne, Locke, Rousseau, Froebel, Herbart. Present national school system.

Course 2. Theory and Art of Teaching. Three hours a week, one term.

This course consists of lectures, assigned reading, informal discussion and practice. It embraces school equipment, organization and management. The student will be enabled to make a thorough study of the public and private schools of the city, the High Schools and Normal Schools.

Course 3. Physiological psychology. Five hours a week, one-half term.

This is a course in applied psychology and is intended to supplement the course of rational psychology.

Definitions, Methods. Organs and their functions. Cell Tissues, Nerves, Spinal Cord, Brain. Mechanical theory of nervous action, Excitation, Inhibition and Conduction.

Correlation of Sensation and Motion. Automatic, reflex and voluntary movements. Cerebral Localization. Speech and theories of the speech center, psychological explanation of its problems.

Stimulus, Genesis of Sensation, Composition of the Sense Percept (idea)—Basis in sensation of the time and space concept. Errors in special perception, in visual perception generally; monocular and binocular vision.

Measurement of sensation intensity. Weber's, Fechner's, Merkel's Law. Time reactions for sensation, volition, thought. Influence of attention, fatigue, rhythm.

Feeling and Emotion. Apperception, Attention, Association.

References: Wundt, Human and Animal Psychology; Grundzügeder, Physiologischen Psychologie; James, Psychology; Ladd, Outlines of Physiological Psychology; Scripture, the New Psychology; Mayer, Psychology; Tichener, Experimental Psychology; Sandford, Experimental Psychology.

Schedule of Class Periods

	Freshman Year	Sophomore Year	Junior Year	Senior Year
Philosophy			8	5
Latin	5	5	3E	
Greek	5	5	3E	
English	5	5	4	4
History	3	3	1E	1E
Mathematics	3	3	2E	
Chemistry	5			
Physics		5	4E	
Elocution	1	1		
Religion	2	2	2	2
Electives (See Below)				

1. Value of Periods: Latin, 60 minutes; Religion, 30 minutes; all other branches, 50 minutes.

2. Electives: In Freshman and Sophomore years a choice must be made between Mathematics or History. Eight hours a week in the Junior and eleven hours a week in the Senior year must be devoted to electives. These include, besides the branches marked with an "E" in the list above, the following: German, French, Political Economy, Pedagogy, Astronomy, Geology, Biology, Chemistry, Public Speaking, Descriptive Geometry, etc.

CONFERRING OF DEGREES.

THE DEGREE OF MASTER OF ARTS WAS CONFERRED UPON

JOSEPH D. McNULTY, A. B.

THE DEGREE OF BACHELOR OF ARTS WAS CONFERRED UPON

RICHARD C. BYRNE,
FRANCIS H. CAREY,
PHILIP H. CARLIN,
T. ELMER DUNN,
L. FREDERICK HAPPEL,
JOSEPH O. KARABASZ,
FRANCIS F. LANG,
JOHN D. LYONS,
JAMES H. O'NEILL,
JAMES J. PICKETT,
LOUIS C. H. ROCKETT,
JOSEPH F. RYAN,
FREDERICK L. SCHMITT,
ELMER J. SPIEGEL,
JAMES P. TORMEY,
THADDEUS C. ZAMIARA.

THE ALUMNI MEDAL

For the Highest Honors of the Class of 1911 was merited by
JOSEPH O. KARABASZ.

Next in Merit..... { Thaddeus C. Zamiara, James H. O'Neill.

Donor of Medal: S. I. C. Alumni Association.

THE JOHN NAGHTEN DEBATE MEDAL WAS MERITED BY

WILLIAM B. O'BRIEN.

Next in Merit..... { James Fitzgerald, Thomas J. O'Brien.

THE HON. CARTER H. HARRISON ORATORICAL MEDAL WAS MERITED BY

WILLIAM B. O'BRIEN.

Next in Merit..... { James Fitzgerald, J. Aaron Colnon.

THE JOSEPH MAGEE ELOCUTION MEDAL WAS MERITED BY

JAMES FITZGERALD.

Next in Merit..... { William G. Dooley, Edward J. Dunlavy.

THE DUMBACH CHEMISTRY MEDAL WAS MERITED BY

ROBERT J. GARLAND.

Next in Merit..... { Richard S. Zalewski, Edward V. Walsh.

Donor of Medal: Mr. Andrew Maguire.

JUNIOR CLASS.

HONORS FOR YEARLY AVERAGE IN THE COLLECTIVE BRANCHES OF THE CLASS.

The Dr. John B. Murphy Gold Medal of Excellence.

LEO A. RYAN, 96.5.

FIRST HONORS.

Edward D. Loughry, 95.1. Windthorst J. Berghoff, 92.
Jeremiah P. Holly, 94. John J. Hayes, 90.

SECOND HONORS.

Jacob J. Balke, 88. Thomas J. O'Brien, 87.
J. Edward Twomey, 86.

SOPHOMORE CLASS.

HONORS FOR YEARLY AVERAGE IN THE COLLECTIVE BRANCHES OF THE CLASS.

The Hon. John Gibbons Medal of Excellence.

James Fitzgerald, 90.

SECOND HONORS.

Richard Zalewski, 89. Edward V. Walsh, 88.

FRESHMAN CLASS.

HONORS FOR YEARLY AVERAGE IN THE COLLECTIVE BRANCHES OF THE CLASS.

The Hon. Richard W. Clifford Gold Medal of Excellence.

ROBERT J. GARLAND.

FIRST HONORS.

JOHN NOONAN, 92. JOSEPH ABEL, 90.

SECOND HONORS.

WILLIAM DOOLEY, 88. JOHN BURKE, 87.
SYLVESTER HOLDEN, 87. ARTHUR TERLECKI, 85.

REGISTER OF STUDENTS.

SENIOR CLASS.

Byrne, Richard C.	Chicago, Ill.
Carey, Frank H.	West Chicago, Ill.
Carlin, Philip J.	Chicago, Ill.
Dunn, T. Elmer.	Chicago, Ill.
Happel, L. Frederic.	Chicago, Ill.
Karabasz, Joseph O.	Lemont, Ill.
Lyons, John D.	Chicago, Ill.
O'Neill, James H.	Chicago, Ill.
Pickett, James	Pullman, Ill.
Ryan, Joseph F.	Chicago, Ill.
Schmitt, Frederic L.	Chicago, Ill.
Spiegel, Elmer J.	Chicago, Ill.
Tormey, James P.	Chicago, Ill.
Zamiara, Thaddeus C.	Chicago, Ill.

JUNIOR CLASS.

Balke, Jacob J.	Chicago, Ill.
Berghoff, Windthorst	Chicago, Ill.
Donahue, Leo L.	Chicago, Ill.
Foley, Leo F.	Chicago, Ill.
Hayes, John J.	Chicago, Ill.
Higgins, William J.	Scranton, Pa.
Holley, Jeremiah P.	Chicago, Ill.
Igoe, J. Francis	Chicago, Ill.
Klein, John B.	Chicago, Ill.
Lemmer, John L.	Chicago, Ill.
Mulhern, Edward T.	Chicago, Ill.
O'Brien, Thomas J.	Chicago, Ill.
O'Brien, William B.	Chicago, Ill.
Reeve, J. Fred.	Chicago, Ill.
Ryan, Leo A.	River Forest, Ill.
Twomey, J. Edward.	Chicago, Ill.
Zuchola, Francis C.	Chicago, Ill.

SOPHOMORE.

Elliot, Joseph P.	Chicago, Ill.
Fitzgerald, James	Chicago, Ill.
Healy, Earl B.	Chicago, Ill.
Lies, Mark A.	Riverside, Ill.
Moorhead, Louis D.	Chicago, Ill.
O'Donnell, Richard	Chicago, Ill.
Saigh, Nicholas	Chicago, Ill.
Somers, Walter E.	Chicago, Ill.
Streysman, Francis E.	Chicago, Ill.
Walsh, Edward P.	Chicago, Ill.
Zahringer, George	Chicago, Ill.
Zalewski, Richard S.	Chicago, Ill.

FRESHMAN.

Abel, Joseph A.....Chicago, Ill.
Bellock, Raymond F.....Chicago, Ill.
Brundage, Howard A.....Chicago, Ill.
Burke, John P.....Chicago, Ill.
Clennon, Thomas C. A.....Chicago, Ill.
Colnon, John A.....Chicago, Ill.
Donigan, James K.....Chicago, Ill.
Dooley, William G.....Chicago, Ill.
Dunlavy, Edward J.....Chicago, Ill.
Garland, Robert E.....Chicago, Ill.
Graham, Robert E., Jr.....Chicago, Ill.
Hart, T. Francis.....Chicago, Ill.
Holden, Sylvester E.....Chicago, Ill.
Madden, William F.....Chicago, Ill.
Major, James A.....Pullman, Ill.
McDonough, Chas. L.....Chicago, Ill.
Moloney, John F.....Chicago, Ill.
Nicely, George M.....Chicago, Ill.
Noonan, John A.....Chicago, Ill.
Terlecki, Arthur F.....Chicago, Ill.
Walsh, J. Joseph.....Chicago, Ill.

SPECIAL.

Baker, Andrew P.....Dyer, Ind.
Devitt, George P.....Chicago, Ill.
Eifler, Henry .....Chicago, Ill.
Loughry, Edward D.....Chicago, Ill.
McCarthy, Clement I.....Chicago, Ill.

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